CITY *of* CAPE GIRARDEAU

PUBLIC WORKS DEPARTMENT

November 21, 2013

Ruth Wallace
Municipal Storm Water Program Coordinator
MO Dept. of Natural Resources
1101 East Riverside Drive
Jefferson City, MO 65101

Re: City of Cape Girardeau SWMP – Revised
MS4 Permit MOR040020

Dear Ruth,

You will recall that we had our MS4 Program Routine Compliance Inspection in April of 2013. We received the Compliance Inspection Report (dated June 6, 2013), and the summary conclusion of the report was our MS4 Program was not in compliance with the MS4 Permit requirements. A large part of the non-compliance was related to the Storm Water Management Plan and the fact that it did not contain all the information about our MS4 Program. The Compliance Inspection Report gave us six months to complete the revisions to our SWMP and make some other adjustments in our MS4 Program. We have made the revisions and corrections.

Please find enclosed our revised SWMP submitted in accordance with the direction given in the Audit Report. This revised SWMP contains our information, forms, checklists, and procedures. I hope this revised document will allow MoDNR to conclude that Cape Girardeau is now in compliance with the MS4 permit requirements.

Should you have questions please contact me at the numbers below.

Cordially,

Stanley Polivick
Stormwater Coordinator

NOV 25 2013

2007 Southern Expressway Cape Girardeau, MO 63703 573-339-6351 Tel 573-339-6363 Fax
cityofcape.org/publicworks facebook.com/capepublicworks

CITY of CAPE GIRARDEAU

STORMWATER MANAGEMENT PLAN

A Continuing Program for Water Quality Improvement 2013 – 2018

NOV 25 2013

Book 1 of 2

CITY of CAPE GIRARDEAU

STORMWATER MANAGEMENT PLAN

A Continuing Program for Water Quality Improvement
2013 – 2018

Table of Contents

Background & Introduction 4

Permitting and Reporting 6

Minimum Control Measures & Best Management Practices 8

Public Education and Outreach (MCM 1) 8

Public Participation (MCM 2) 9

Illicit Discharge Detection and Elimination (MCM 3) 10

Construction Site Runoff Control (MCM 4) 12

Post Construction Runoff Control (MCM 5) 13

Pollution Prevention / Good Housekeeping (MCM 6) 15

Appendix 1 16

MS4 Stormwater Team 16

Appendix 2 17

MS4 Permit Document 17

Appendix 3 18

City Code Chapters 18

Chapter 12 Floodplain Management 18
Chapter 22 Solid Waste & Weeds 19
Chapter 23 Storm Water 20
Chapter 25 Development Code 21
Chapter 29 Sewer Ordinance 22

Appendix 4 23

Procedures & Policies Manual 23

Appendix 5 24

SWPPP Template 24

Appendix 6 25

Check Lists 25

Stormwater Plan Review Check List 25
Construction Site Inspection Check List 26
SWPPP Review Check List 27

Appendix 7 28
City Issued Development Permits 28
Stormwater Management Permit 28
Floodplain Development Permit 29
Appendix 8 30
City of Cape Stormwater Web Page 30
Appendix 9 31
Parks Dept Newsletter Insert 31
Appendix 10 32
Water Bill Note Example 32
Appendix 11 33
Storm Drain Marking 33
Appendix 12 34
IDDE Water Sampling 34
Example of Monthly Testing Report 34
Map of Monthly Testing Sites 34
Example of Twice Yearly Testing Report 35
Map of Twice Yearly Testing Sites 35
Appendix 13 36
Outfall Reconnaissance Inventory Form 36
Appendix 14 37
Public Works Fleet SPCC 37
Appendix 15 38
Fleet Maintenance- Standard Operating Procedures 38
Appendix 16 39
Training Videos 39

Background & Introduction

The City of Cape Girardeau was established in 1806. The 2010 Census reports the City has a population of 37,941. According to the City's GIS information the City of Cape Girardeau covers an area of 27 square miles. The City of Cape Girardeau has a Council – Manager form of government. The City Council consists of a mayor (elected city wide) and six council members (one elected from each of six wards), and all of them are part time. The Council appoints a full time City Manager. The City has mostly residential areas and commercial retail areas. Southeast Missouri State University ins within the city limits. The City is served by two large hospitals and has some light industrial areas.

The City has five major water sheds which are Juden Creek, Sloan Creek, Cape La Croix Creek, Ramsey Branch, and the Headwater Diversion Channel. Each of these discharges into the Mississippi River.

The City has been involved in water quality improvement for over 2 decades. In the early 1990's the City began an effort to separate combined sewers. This had a two fold objective / impact of reducing wet weather flows at the wastewater treatment plant and improving water quality in local waterways. In 2003 the City was included in the Phase II Stormwater Program of the MS4 permitting process. Efforts were taken to comply with the MS4 permit requirements during that first 5 year permit period. In 2008 the City renewed the MS4 permit and took a significant step forward in the compliance effort by hiring a full time stormwater coordinator. Further steps toward improved compliance were creation of the city staff Stormwater Team and revision of local ordinances and policies for inclusion of more water quality guidelines and requirements.

The City of Cape Girardeau has a Stormwater Ordinance that was adopted in 1989, and updated as recently as 2012. The Stormwater Ordinance requires that developers:

- Hold pre-design / pre-development meetings with the City Staff to consider opportunities for water quality BMP's to be utilized in the site design.
- Develop effective flood control detention methods that include water quality considerations.
- Develop an effective means of capturing / treating the runoff from the 1 inch rain event (90th percentile rain event).
- Provide as part of the design package a detailed SWPPP for the development site, which is to include information on the planned erosion & sediment controls, pollution prevention practices, and future operation and maintenance practices for onsite water quality BMP's.
- Preserve a 50 foot buffer along stream banks.
- Make graded slopes no steeper than 3:1.
- Make cooperative use of landscaping areas for stormwater quality improvement.

The City of Cape Girardeau Stormwater Ordinance provides for control of illicit discharges by listing specific allowable non-stormwater discharges and listing specific prohibited non-stormwater discharges.

The City of Cape Girardeau Stormwater Ordinance provides enforcement authority for all the requirements of the Ordinance. This ordinance gives city staff authority to perform necessary inspections. It includes a progressive enforcement protocol. The Stormwater Ordinance is enforced within the City limits on all construction sites regardless of size of the area of land disturbed.

The City of Cape Girardeau continues to be committed to reducing the levels of contaminants, silt, sediments, and other pollutants reaching area waterways by means of the stormwater flowing from or through the City of Cape Girardeau. However, it should be noted that the City has no control over what occurs outside the City limits. Any contaminants entering the City from outside city limits will pass through. The City will continue to coordinate efforts with Cape Girardeau County and the City of Jackson to reduce the levels of pollution flowing into area waterways.

The City of Cape Girardeau Stormwater Management Team (SWMT) oversees the development and implementation of the Stormwater Management Plan (SWMP). The SWMT meets at least on a semi-annual basis to review the status of the SWMP and address issues necessary to properly implement the SWMP. Other meetings with part or all of the SWMT, or other appropriate staff will be held as necessary for proper implementation of the elements of the SWMP. The SWMT is comprised of City staff from Public Works, Engineering, Parks and Recreation, Planning, Inspections, GIS, and Airport. The Storm Water Coordinator serves as the head of the SWMT, schedules the meetings, prepares the reports, prepares records of the meetings, provides recommendations for updates to the SWMP or the Stormwater Ordinance, and consults the SWMT on stormwater issues and problems. The SWMT also makes recommendations for changes or amendments to existing ordinances. The current members of the SWMT are listed in Appendix 1.

The City of Cape Girardeau Storm Water Management Plan (SWMP) has specific Best Management Practices (BMP) for each of the six required Minimum Control Measures (MCM). There are measureable goals for BMP's within each MCM, and the responsible party is identified for each BMP.

The SWMP is set up to work in cooperation with the City's Ordinances to provide for review, implementation, oversight, and enforcement of all approved stormwater pollution prevention plans for new development or re-development sites. These plans necessarily include erosion and sediment control plans, water quality improvement BMP's, and other elements in accordance with the City's regulations to comply with the MS4 Permit.

The SWMT will review the SWMP annually in conjunction with the Annual Reporting requirements, or as required by the director of the U. S. Environmental Protection Agency and / or the Missouri Department of Natural Resources, in accordance with statutory provisions of section 402(p)(3)(B) of the Clean Water Act. Changes to the SWMP shall be approved by the SWMT and be forwarded to MoDNR Water Pollution Control Branch. The SWMT has authority to make changes to the SWMP that do not involve ordinance revisions. Ordinance revisions must be approved through the normal City Council process.

Permitting and Reporting

The MS4 Operating Permit is issued by MoDNR. The MS4 Permit is in Appendix 2. This MS4 Permit provides the objectives to be met through the SWMP. Generally these objectives are:

- Identify pollutants and their sources
- Use structural and non-structural practices to control the discharge of pollutants
- Ensure development sites have long term water quality practices implemented
- Reduce the discharge of pollutants to the "Maximum Extent Practicable"
- Generally protect the integrity and water quality of area waterways

In order to meet these objectives, the City will enforce applicable ordinances and implement BMP's identified in the SWMP.

Annually a report will be prepared which details the status of compliance with the permit conditions. This report will include an assessment of the appropriateness of the selected BMP's and progress toward achieving the measureable goals for each BMP. The report will provide results of any data collected and analyzed, such as monitoring data from stream water samples. The report will include any recommendations for changes to the BMP's or measureable goals for any of the MCM's. The City's Annual Report to MoDNR will include a summary of the annual report, and a summary of the stormwater activities planned for the next reporting period.

All records and reports will be maintained for a minimum of three years, and will be accessible to the public. Upon request, copies of records and reports will be submitted to the permitting authority.

Additional Information

The Cape Girardeau Airport has a separate Stormwater Management Plan that includes the Airport Fueling Area SPCC Plan.

The Fleet Maintenance Area in the Public Works building has a SPCC plan for that area. This SPCC is in Appendix 14. The other maintenance areas, such as Parks and the Golf Course, do not store quantities of oil products as to require a SPCC plan.

Standard Operating Procedures (SOP's) are prepared in written form and kept in these areas: Parks Maintenance Shed, Jaycee Golf Course Maintenance Shed, Fleet Maintenance area, Airport Managers Office, Solid Waste Recycle Center, Solid Waste Transfer Station, Sewer and Stormwater Maintenance area, and Streets Maintenance area.

The City of Cape Girardeau believes this SWMP, City ordinances, and City policies provide reasonable methods and practices to achieve compliance with the MS4 Permit requirements and guidelines.

Minimum Control Measures & Best Management Practices

Public Education and Outreach (MCM 1)

The City of Cape Girardeau believes that educating the public is important for successful implementation of the SWMP to reduce the levels of contamination and pollutants entering area waterways. To accomplish the goals set forth in this SWMP for Public Education the City has set the following objectives for this Measure:

- Identify, develop, obtain, and provide educational resources for distribution to the citizens through media such as mailings, print, radio, television, and the internet.
- Implement a program of marking storm drains with "Do Not Dump" message.
- Employee training for Pollution Prevention and Illicit Discharge Detection & Response
- Set measureable goals for the Practices
- Evaluate the effectiveness of the BMP's.
- Construction Sites are targeted as a potential sources of pollutants. Workshops are focused on the developers, designers, and contractors as targeted audiences.

The BMP's selected for the Public Education Measure are listed below. See the chart on page 7A for the list of BMP's, measurable goals, responsible party, and implementation schedule.

- Inform residents through water quality notes on utility bills
- CG993 local access television programming
- Storm drain stenciling & marking
- Employee education
- Public meetings
- Workshops with area contractors, engineers, developers
- Web site postings and links
- Placement of information signs along walking tails
- Blogs and social media

Public Education

Best Management Practices

	BMP	Description	Status	Responsible Party	Measureable Goals	Implementation Schedule 13-14	14-15	15-16	16-17	17-18
1	Utility Bill Notes	Print water quality related notes on the water bill cards.	Continuing Effort	SWC	Have note on water bill cards for four months each year	x	x	x	x	x
2	Channel CG993 Programming	Use local access channel for broadcast of Water quality educational programs and PSA's	Continuing Effort	SWC, PIO		x	x	x	x	x
2A	Run "Liquid Assets" program		Continuing Effort	PIO	Run once each week	x	x	x	x	x
2B	Run EPA program "After The Storm"		Continuing Effort	PIO	Run once each week	x	x	x	x	x
3	Use Social Media	Use Social media to distribute water quality information	Continuing Effort	SWC, PIO		x	x	x	x	x
3A	Develop plan & content		Continuing Effort	SWC, PIO		x				
3B	Place postings & update		Continuing Effort	PIO			x	x	x	x
4	Storm Drain Stenciling / Marking	Have volunteers and City crews mark storm drain covers with "Do No Dump . . . Drains To River" message	Continuing Effort	SWC	Have 25 inlets stenciled or marked each year	x	x	x	x	x
5	Employee Education	Provide training to City employees for pollution prevention / housekeeping practices and Illicit Discharge issues	Continuing Effort	SWC, SWMT	Have training for 5 divisions 2 times each year	x	x	x	x	x
6	Elected Official Education	Make Storm water quality presentation to City Council and Planning Board	Continuing Effort	SWC, CE	make one presentation to each group annually	x	x	x	x	x
7	Public Meetings	Host a meeting open to the public for presentation of general stormwater water quality information	Continuing Effort	SWC, CE, PIO		x	x	x	x	x
7A	Develop Pollution Prevention Program for Public Meetings		In Development	SWC, CE, PIO	get program prepared	x				
7B	Schedule meetings for public presentation		In Development	SWC, CE, PIO	host one meeting per year		x	x	x	x
8	Web Site Postings & Links	Identify sources of Pollution Prevention information and post it or the links on the City Website	Continuing Effort	SWC, PIO	Add 5 more links		x			
9	Walking Trail Signs	Install water quality information signs along walking trail	In Development	SWT	install 5 signs years 3 and 5			x		x
10	Workshops	Host workshops for local developers, engineers, and contractors	Continuing Effort	SWC, CE	Host one workshop every other year		x		x	

Responsible Party Notation
SWMT = Stormwater Management Team
SWC = Stormwater Coordinator
PIO = Public Information Office
CE = City Engineer

Public Participation (MCM 2)

The City of Cape Girardeau will strive to engage public participation in the implementation of the SWMP. To accomplish the goals set forth in this SWMP for Public Participation the City has set the following objectives for this Measure:

- Develop educational resources to support the Public Education program
- Coordinate and host Public Meetings for presentation and discussion of the City SWMP and water quality issues in the community
- Preparation of flyers / brochures with water quality information for distribution to public.
- Planning and working on community clean-up efforts such as Hazardous Waste Collection Day and Friends of the Park work days.
- Use volunteers / non-city staff for gathering and testing of water samples in primary watersheds
- Set measureable goals for the practices in the SWMP.
- Evaluate the effectiveness of the BMP's.
- Public input is encouraged through website and social media. Drafts of the proposed SWMP are presented at Council meetings and Planning and Zoning Board meetings where public input can be offered.

The BMP's selected for the Public Participation Measure are listed below. See the chart on page 8A for the list of BMP's, measurable goals, responsible party, and implementation schedule.

- Coordinate storm drain marking program
- Coordinate volunteer water quality monitoring program
  - Monthly samples tested at 9 locations
  - Twice yearly samples tested at 9 locations
- Community clean-up days
- Occasional presentations at city council or planning and zoning commission meetings
- Blogs and social media
- Coordinate and host public meetings

Public Participation

Best Management Practices

	BMP	Description	Status	Responsible Party	Measureable Goals	Implementation Schedule 13-14	14-15	15-16	16-17	17-18
1	Public Meetings	Host a meeting open to the public for presentation of general stormwater water quality information	Continuing Effort	SWC, CE, PIO						
1A	Develop Pollution Prevention Program for Public Meetings		In Development	SWC, CE, PIO	get program prepared	x				
1B	Schedule meetings for public presentation		In Development	SWC, CE, PIO	host one meeting per year		x	x	x	x
2	Storm Drain Stenciling / Marking	Have volunteers and City crews mark storm drain covers with "Do No Dump . . . Drains To River" message	Continuing Effort	SWC	Have 25 inlets stenciled or marked each year	x	x	x	x	x
3	Volunteer Water Quality Monitoring	Perform monthly or periodic sampling and testing of samples form local waterways	Continuing Effort	SWC	Have samples taken and tested 12 months	x	x	x	x	x
4	Community Clean-Ups	Host events for household hazardous waste disposal. Host stream and park cleanup events	Continuing Effort	SWC, Parks	Host 1 event		x		x	
5	Presentations at City Government meetings	Make Storm water quality presentation to City Council and Planning Board	Continuing Effort	SWC, CE	make one presentation to each group annually	x	x	x	x	x

Illicit Discharge Detection and Elimination (MCM 3)

The City of Cape Girardeau continues efforts to reduce the occurrence of illicit discharges. The Stormwater Ordinance identifies illicit discharges (CoCG code Ch. 23-13). To accomplish the goals set forth in this SWMP for Illicit Discharge Detection and Elimination the City has set the following objectives for this Measure:

- Coordinate periodic Household Hazardous Waste Collection events
- Storm drain inlet marking with "Do Not Dump...Goes To River " Message
- Maintain GIS Information on identified outfalls for Outfall Reconnaissance Inventory (ORI) purposes
- Perform periodic inspection of outfalls for Outfall Reconnaissance Inventory purposes
- Maintain stormwater system information on the GIS mapping system
- Continue employee training for illicit discharges
- Evaluate City codes related to illicit discharges and pollution control and revise as necessary
- City sewer crews respond to sewage overflows or discharges with appropriate action.
- Illicit discharges will be traced upstream on foot or by vehicle, using visual observations and pipeline tv cameras as necessary.

The BMP's selected for the Illicit Discharge Detection and Elimination Measure are listed below. See the chart on page 10Afor the list of BMP's, measurable goals, responsible party, and implementation schedule.

- Inform residents through water quality notes on utility bills
- Perform periodic inspections for illicit discharges
- Continue training for city staff in Public Works, Engineering, Parks, Airport, and Building Inspections regarding illicit discharges
- Expand outfall inventory for ORI
- Perform dry weather stream inspections for ORI purposes
- Confirm city emergency response staff are trained for vehicle accident liquid waste containment or capture
- Inspect marked storm drains and have remarked as necessary
- Evaluate IDDE program effectiveness

- Identify and keep updated list of common pollutants (CoCG code Ch. 23-13:1b)
- Fats, Oils & Grease ordinance (CoCG code Ch. 29-5)
- Water quality monitoring program
  - Monthly samples tested at 9 locations
  - Twice yearly samples tested at 9 locations
- Maintain list of allowable non-stormwater discharges (CoCG code Ch. 23-13:2)
- City regulations will be enforced to ensure identified violators comply with code requirements (CoCG code Ch. 23-15:1a-d)
- Sanitary sewer system overflows (SSO's) are addressed by city crews and reported to MoDNR.
- The City has a separate continuing I&I Flow Reduction Program to reduce the occurrence of SSO's.

Illicit Discharge Detection & Elimination

Best Management Practices

	BMP	Description	Status	Responsible Party	Measureable Goals	Implementation Schedule 13-14	14-15	15-16	16-17	17-18
1	GIS Data Entry for Stormwater System	Maintain and update graphical and data information for stormwater system components in the GIS mapping system.	Continuing Effort	SWC, CE	Continue entry of new system information as additions or changes are made	x	x	x	x	x
2	Storm Drain Stenciling / Marking	Have volunteers and City crews check markings for "Do No Dump . . . Drains To River" message on drain inlets	Continuing Effort	SWC	check 20 inlets each year	x	x	x	x	x
3	Household Hazardous Waste Collection	Periodically host household hazardous waste collection effort	Continuing Effort	SWC, PIO, CE	Hold an event as grants allow		x			x
4	Utility Bill Notes	Print water quality related notes on the water bill cards.	Continuing Effort	SWC	Have note on water bill cards for four months each year	x	x	x	x	x
5	Expand Outfall Inventory for ORI purposes	Define, identify, and map stormwater outfalls for Outfall Reconnaissance Inventory purposes		SWC, GIS, CE		x	x	x	x	x
6	Stream Inspections	Coordinate and perform stream inspections for Outfall Reconnaissance Inventory database	Continuing Effort	SWC,SWMT	perform stream inspection 3 years over permit cycle	x		x		x
7	Ordinance Enforcement	Continue enforcement activities when illicit discharges are found. Coordinate with Abatement Officer for issuing summons and court action when necessary	Continuing Effort	SWC	Track occurrences of illicit discharges and cite offending party if found.	x	x	x	x	x
8	Employee Education	Provide training to City employees for Illicit Discharge issues	Continuing Effort	SWC, SWMT	Have training for 5 divisions 2 times each year	x	x	x	x	x
9	Training for liquid waste handling related to traffic accidents	Continue training for employees in Fire Department, Police Department, Street Division, Airport, and Stormwater Division for proper actions to control and capture liquid waste at accident scenes.	Continuing Effort	SWC, SWMT	One training session for each division per year	x	x	x	x	x
10	Identify Pollutant Types	Identify common pollutants and develop procedures for control of them.	Continuing Effort	SWMT, SWC	Update list every other year	x		x		x
11	Coordinate ORI field work	Perform stream walks to inventory, photo, and record observations at each outfall.	Continuing Effort	SWMT, SWC	Inventory 20% of outfalls each year	x	x	x	x	x

Construction Site Runoff Control (MCM 4)

The City of Cape Girardeau continues to enforce the Stormwater Ordinance for control of construction site runoff to protect area waterways from pollutants associated with development or re-development sites. The Stormwater Ordinance requires developers to meet with City staff prior to commencing site design for a development or re-development site (CoCG Code Ch. 23-5:3). The Stormwater Ordinance requires developers to provide a Storm Water Pollution Prevention Plan for construction sites of any size (Ch. 23-6:8-9). This SWPPP will include BMP's for erosion and sediment control on construction sites. The SWPPP will include BMP's for long term water quality concerns (Ch. 23-8:10, Ch. 23-10:17). The City has provisions for review of all site development plans prior to issuance of a building or grading permit (CoCG code Ch. 23-5 & 6). The Stormwater Ordinance gives the City staff authority to inspect and enforce the regulations for control of pollutant sources, most notably erosion and sediment controls, at a construction site (CoCG code Ch. 23-14:1a-d). Inspections are planned to be performed weekly by persons competent to perform that function. To accomplish the goals set forth in this SWMP for Construction Site Runoff Control the City has set the following objectives for this Measure:

- Review the stormwater ordinance annually and update as needed
- Utilize a checklist for site plan review of development plans or grading plans.
- Utilize proper procedures and checklists for inspection of construction sites
- Utilize enforcement protocols to ensure compliance with required erosion and sediment controls, and other pollutant controls
- Provide a list of common pollutants (CoCG code Ch. 23-13:1b)
- Set measureable goals for the Practices in the SWMP
- Evaluate the effectiveness of the BMP's.

The BMP's selected for the Construction Site Runoff Control Measure are listed below. See the chart on page 11A for the list of BMP's, measurable goals, responsible party, and implementation schedule.

- Review stormwater ordinance annually and update as necessary
- Required site plan review with focus on water quality issues (CoCG code Ch. 23-5 & 6)
- Construction site inspections (CoCG code Ch. 23-15)
- Ordinance authorizing enforcement procedures (CoCG code Ch. 23-15)
- Maintain procedures to receive information from the public
- SWPPP required to be at the development site (CoCG code Ch. 23-6:14)

Construction Site Runoff Controls

Best Management Practices

	BMP	Description	Status	Responsible Party	Measureable Goals	Implementation Schedule 13-14	14-15	15-16	16-17	17-18
1	Stormwater Ordinance	Periodically review the stormwater ordinance for necessary amendments	Continuing Effort	SWC, CE SWMT	Review ordinance annually	x	x	x	x	x
2	Pre-development meetings	Have meetings with developers / designers to discuss site layout with specific attention to sediment & erosion controls, and other pollutant controls	Continuing Effort	SWC, CE	Have 40 meetings each year	x	x	x	x	x
3	Site Plan Review	Have all proposed developments provide a site plan and SWPPP. This plan to be reviewed by SWC and City Engineering office.	Continuing Effort	SWC, CE	Review 40 site plans	x	x	x	x	x
4	Site Inspections	Continue to use procedures and checklists to perform and document construction site inspections.	Continuing Effort	SWC	Perform 200 site inspections by SWC, Inspections Division staff, and Engineering Division staff	x	x	x	x	x
5	Public Input	Continue receive and process calls from citizens. The calls could be complaints, suggestions, or observations. Stormwater Division staff responds to the calls	Continuing Effort	SWMT, SWC	Respond to 24 calls in a timely manner, according to the nature of the call.	x	x	x	x	x

Post Construction Runoff Control (MCM 5)

The City of Cape Girardeau continues to promote the use of structural and non-structural design and management practices to reduce the post construction runoff of pollutants into the MS4. The City ordinances require developers to:

- Hold pre-design / pre-development meetings with the City Staff to consider opportunities for water quality BMP's to be utilized in the site design (CoCG code Ch. 23-5:3).
- Develop effective flood control detention methods that include considerations for water quality.
- Develop an effective means of capturing / treating the runoff from the 1 inch rain event (90th percentile rain event) (CoCG code Ch. 23-8:2d, Ch. 23-8:3).
- Provide as part of the design package a detailed SWPPP for the development site, which is to include information on the planned erosion & sediment controls, pollution prevention practices, and future operation and maintenance practices for long term onsite water quality BMP's (CoCG code Ch. 23-6, Ch. 23-8:1).
- Preserve a 50 foot buffer along stream banks (CoCG code Ch. 23-8:14).
- Make graded slopes no steeper than 3:1 (CoCG code Ch. 23-8:9).
- Incorporate use of landscaping areas for stormwater quality improvement(CoCG code Ch. 23-8:4d, 23-10:17h)
- Encourage use of Low Impact Development practices and design elements

To accomplish the goals set forth in this SWMP for Post Construction Runoff Control the City has set the objectives listed below for this Measure.

- Evaluate the recommended structural and non-structural BMP's and revise as necessary
- Evaluate local ordinances & policies to insure implementation of Post Construction Runoff Controls and amend as necessary
- Ensure adequate and proper long-term operation and maintenance of onsite water quality and pollution controls
- Set measureable goals for the Practices in the SWMP
- Evaluate the effectiveness of the BMP's.

The BMP's selected for the Post Construction Runoff Control Measure are listed below. See the chart on page 13A for the list of BMP's, measurable goals, responsible party, and implementation schedule.

- Identify structural and non-structural BMP's for long term control of water runoff and pollutants from development and re-development sites (CoCG code Ch. 23-6, Ch. 23-8:1, Ch. 23-8:16).
- Maintain a catalog of recommended BMP's
- Utilize early discussion and review procedures for incorporating water quality elements into site designs (CoCG code Ch. 23-6, Ch. 23-8:1, Ch. 23-5:3)
- Maintain 50 foot buffer along stream banks (CoCG code Ch. 23-8:14)
- Maintain development controls within floodplain areas (CoCG code Ch. 12-11, 12-14, 12-15)
- Control direct connections of onsite runoff water to the public conveyance system or street(CoCG code Ch. 25-804 a)
- Capture / Treat the one inch rain event runoff (CoCG code Ch. 23-8:2d, 23-8:3)
- Control utility extensions along stream banks
- Develop database of Post Construction BMP's for O&M purposes
- Encourage use of porous pavement techniques for parking areas (CoCG code Ch. 25-908, 25-205:C1)
- Continue to responsibly enforce procedures and implementation of water quality improvement elements in the design, construction, and operations phases of a development (CoCG code Ch. 23-6, 23-8:1)
- Recommend use of native plants in landscaping areas (CoCG code Ch. 23-8:11)
- Post construction water quality BMP's to be properly maintained (CoCG code Ch. 23-6:10-11, 23-12)
- Large sites required to address stormwater management as one site, not as small pieces (CoCG code Ch. 23-8:8)
- Encourage use of landscaping for stormwater quality (CoCG code Ch. 23-10:17h, 23-8:4d)
- Maximum slope allowed on disturbed areas is 3:1 (CoCG code Ch. 23-8:9)
- Post construction BMPS' required to be included in site development plans (CoCG code Ch. 23-8)
- Post Construction BMPS' required to be inspected annually by owner and reported to City (CoCG code Ch. 23-12:3)
- 15% landscape area required (CoCG code Ch. 25-803)
- Large parking areas have landscape requirements (CoCG code Ch. 25-804)
- Cluster developments (CoCG code Ch. 25-1252)
- Sanitary sewers required for developments (CoCG code Ch. 25-1104:a, 29-18, 29-21)

Post Construction Runoff Controls

Best Management Practices

	BMP	Description	Status	Responsible Party	Measureable Goals	Implementation schedule 13-14	14-15	15-16	16-17	17-18
1	List of Post Construction Runoff Control BMP's	Prepare and maintain a list of recommended Structural & Non-structural BMP's for Post Construction Runoff control	Continuing Effort	SWC, SWMT	Complete the preparation of the BMP list and update as necessary	x	x	x	x	x
2	Design criteria for the recommended BMP's	Prepare and maintain a set of design criteria for the recommended BMP's for Post Construction runoff control	Continuing Effort	SWC, CE	Prepare a set of BMP design criteria for use by designers or contractors. Update annually	x	x	x	x	x
3	SWPPP review	Review SWPPP for development and re-development sites for specific water quality BMP applications	Continuing Effort	SWC, CE		x	x	x	x	x
3A	Stream Bank Buffer Zone	Maintain and enforce 50 ft buffer zone along stream banks	Continuing Effort	SWC, CE		x	x	x	x	x
3B	Disconnect Onsite Storm Water Flows	Maintain policy of not allowing a direct connection of development site storm water flows to the MS4 conveyance system	Continuing Effort	SWC, CE		x	x	x	x	x
3C	90th percentile rain event control	continue to require capture / treatment of 1 inch rain event runoff from development sites	Continuing Effort	SWC, CE		x	x	x	x	x
3D	Post Construction BMP O&M	Use PC BMP database to track maintenance of applicable BMP's	Continuing Effort	SWC, CE	Check 20% of database elements each year	x	x	x	x	x
3E	Flood control detention	Review flood control detention plans to for water quality considerations	Continuing Effort	SWC, CE		x	x	x	x	x
3F	Use of landscape areas for storm water quality improvement	encourage use of landscape areas for service as water quality BMP:'s	Continuing Effort	SWC, CE		x	x	x	x	x
3G	Maximum graded slope 3:1	Enforce regulations for maximum graded slopes of 3:1	Continuing Effort	SWC, CE		x	x	x	x	x
4	Pre-development meetings	Have meetings with developers / designers to discuss site layout with specific attention to sediment & erosion controls, and other pollutant controls	Continuing Effort	SWC, CE	Have 40 meetings each year	x	x	x	x	x
5	Flood Plain Development Controls	Maintain and enforce flood plain development controls	Continuing Effort	SWC, CE		x	x	x	x	x
6	Utility extension controls	Maintain control of utility extensions along stream banks. When such extension is necessary design to minimize impact to vegetation and stream.	Continuing Effort	SWC, CE		x	x	x	x	x
7	Post Construction BMP database	Develop and maintain a digital database of water quality BMP's	Continuing Effort	SWC, CE	Update database quarterly	x	x	x	x	x
8	Parking Space Variances	Review parking space requirements for specific developments to see if variance may be justified to lower number of required spaces	Continuing Effort	SWC, CE		x	x	x	x	x
9	LID design practices & elements	Encourage us of Low Impact Development design practices and elements	Continuing Effort	SWC, CE		x	x	x	x	x

Pollution Prevention / Good Housekeeping (MCM 6)

The City of Cape Girardeau continues a thorough program for pollution prevention through good housekeeping practices. To accomplish the goals set forth in this SWMP for Pollution Prevention & Good Housekeeping the City will continue numerous established procedures. To accomplish the goals set forth in this SWMP for Pollution Prevention & Good Housekeeping the City has set the following objectives for this Measure:

- Maintain and update SPCC plans
- Maintain and update Standard Operating Procedures in each work area
- Maintain and update / screen MSDS information for each work area
- Continue use of calibrated meters for salt spreading
- Conduct periodic inspections of work areas
- Continue periodic training of City staff for Pollution Prevention
- Perform periodic self assessment to evaluate ways to improve pollution prevention efforts

The BMP's selected for the Pollution Prevention & Good Housekeeping Measure are listed below. See the chart on page 14A for the list of BMP's, measurable goals, responsible party, and implementation schedule.

- Continue training for maintenance staff for pollution prevention
- Develop periodic training schedule for maintenance staff
- Maintain in good condition the computerized metering devices for ice control spreader boxes
- Maintain in good condition the salt dome storage structure
- Continue use of brine and calcium chloride for snow and ice control
- Continue scheduled cleaning of storm drains
- Continue Used Motor Oil Reuse Program
- Continue practice of marking drain inlets with the "Do Not Dump" message
- Keep and update Standard Operating Procedures for pollution prevention for each work area
- Maintain training and certification for spraying for weed abatement
- Continue use of larvicide for vector control
- Maintain and update SPCC plans
- Maintain and update / screen MSDS information for each work area
- Continue street sweeping operations
- Continue solid waste recycling program
- Continue battery recycling program
- Continue automobile tire recycling program
- Continue program of land application for wastewater sludge
- Continue program for household appliance disposal
- Maintain the vehicle wash bay in good condition
- Continue city wide leaf collection program

Pollution Prevention & Good Housekeeping

Best Management Practices

	BMP	Description	Status	Responsible Party	Measureable Goals	Implementation Schedule 13-14	14-15	15-16	16-17	17-18
1	Training for City Staff	Provide training to City employees for pollution prevention &/ housekeeping practices. Set up a schedule for training.	Continuing Effort	SWC, SWMT	Have training 2 times each year for Fleet Maint, Parks, Stormwater, Sewer, and Solid Waste crews	x	x	x	x	x
2	Computerized Metering Equipment for Ice Control	Keep computerized equipment used to spread chemicals for ice control in good operating condition and properly calibrated	Continuing Effort	SWC	Have equipment checked each fall before winter season.	x	x	x	x	x
3	Salt Storage	Keep salt storage dome in good condition.	Continuing Effort	SWC	Have storage area and dome checked each year	x	x	x	x	x
4	Use brine and calcium chloride for snow and ice control	use brine and calcium chloride for snow ans ice control instead of rock salt when feasable	Continuing Effort	SWC		x	x	x	x	x
5	Systematic Cleaning of Storm Drains	Continue program of scheduled cleaning for storm drains around the City	Continuing Effort	SWC		x	x	x	x	x
6	Continue Used Oil Reuse Program	Continue collection and use of used oil for heaters in maintenance shop area	Continuing Effort	SWC, SWMT	collect and reuse 300 gallons per year	x	x	x	x	x
7	Standard Operating Procedures	Keep and update Standard Operating Procedures for pollution prevention in each work area	Continuing Effort	SWC, SWMT	check and update information each year	x	x	x	x	x
8	Weed Abatement certification	Continue to have weed abatement staff trained to maintain certifications	Continuing Effort	SWC, SWMT		x	x	x	x	x
9	Vector Control (mosquitoes)	Continue to use larvicide for vectro control	Continuing Effort	SWC, SWMT		x	x	x	x	x
10	SPCC Plans	Continue to keep SPCC plans updated	Continuing Effort	SWC, SWMT		x	x	x	x	x
11	MSDS Information	Continue to keep MSDS informatin updated and screened	Continuing Effort	SWC, SWMT		x	x	x	x	x
12	Street Sweeping	Continue street sweeping operations	Continuing Effort	SWC, SWMT	sweep all streets once per month	x	x	x	x	x
13	Soild Waste Recycling Program	Continue soild waste recycling program	Continuing Effort	SWC, SWMT	recycle ### tons per year	x	x	x	x	x
14	Battery Recycling Program	Continue equipement and vehicle battery recycling program	Continuing Effort	SWC, SWMT	recycle ### batteries per year	x	x	x	x	x
15	Automobile Tire Recycling Program	Continue tire recycling program	Continuing Effort	SWC, SWMT	recycle ### tires per year	x	x	x	x	x
16	Wastewater Sludge Application program	Continue program to land apply wastewater process sludge	Continuing Effort	SWC, SWMT	apply ### tons / loads each year	x	x	x	x	x
17	Household Appliance Disposal	Continue program to accept and dispose of household apliances	Continuing Effort	SWC, SWMT	dispose of ### applinaces each year	x	x	x	x	x
18	Vehicle Wash Bay	Keep vehicle wash bay in good condition for washing machinery and equipment	Continuing Effort	SWC, SWMT		x	x	x	x	x
19	Citywide Leaf Collection Program	Continue the citywide leaf collectin and disposal program	Continuing Effort	SWC, SWMT	collect / dispose ### tons leaves each year	x	x	x	x	x

Appendix 1

MS4 Stormwater Team
2013

Stan Polivick	Stormwater Coordinator
Steve Cook	Assistant Director Public Works
Stacey Beasley	Stormwater Maintenance Supervisor
Casey Brunke	City Engineer
	GIS Division
Brock Davis	Division Manager Parks & Recreation
Tim Morgan	Inspection Services Director
Nicolette Brennan	Public Information Office
Ryan Shrimplin	Planner
Bruce Loy	Airport Manager
Anna Kangas	Plan Review Specialist

Appendix 2

MS4 Permit Document

STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION

MISSOURI STATE OPERATING PERMIT

GENERAL PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended.

MO-R04000

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

All Outfalls

Discharges from Regulated Small Municipal Separate Storm Sewer Systems

SIC 9511/NAICS 924110

This permit authorizes only wastewater, including storm waters, discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

June 13, 2008
Effective Date

Doyle Childers, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

June 12, 2013
Expiration Date

Edward Galbraith, Director of Staff, Clean Water Commission

Table of Contents

1. Coverage Under this Permit
   1.1 Permit Area
   1.2 Eligibility
   1.3 Limitations on Coverage
   1.4 Obtaining Authorization

2. Application Requirements
   2.1 Deadlines for Application
   2.2 Additional designations after the date of permit issuance
   2.3 Submitting a Late application

3. Special Conditions
   3.1 Discharges to Water Quality Impaired Water Bodies
   3.2 Duty to Comply
   3.3 Continuation of the Expired General Permit
   3.4 Need to Halt or Reduce Activity Not a Defense
   3.5 Permit Transfers
   3.6 Procedures for Modification or Revocation
   3.7 Requiring a Site-Specific or an Alternative General Permit

4. Storm Water Management Programs
   4.1 Requirements
   4.2 Minimum Control Measures
   4.3 Sharing Responsibility
   4.4 Reviewing and Updating Storm Water Management Programs

5. Monitoring, Recordkeeping and Reporting
   5.1 Monitoring
   5.2 Recordkeeping
   5.3 Reporting

6. Standard Permit Conditions

7. Definitions

1. **Coverage Under this Permit**

1.1 Permit Area

This permit covers all areas served by a municipal separate storm sewer system (MS4) for which the applicant is identified as the continuing authority.

1.2 Eligibility

1.2.1 This permit authorizes discharges of storm water from regulated small MS4s, as defined in 10 CSR 20-6.200. The permittee, or co-permittee, is authorized to discharge under the terms and conditions of this general permit if the permittee:

1.2.1.1 Owns or operates a regulated small MS4 as defined in 10 CSR 20-6.200; located fully or partially within an urbanized area as determined by the latest Decennial Census by the Bureau of Census or designated for permit authorization by the department pursuant to 10 CSR 20-6.200; and

1.2.1.2 Submits a general permit application in accordance with Section 2 of this permit; and

1.2.1.3 Complies with the terms of this general permit.

1.2.2 The following are types of discharges authorized by this permit:

1.2.2.1 *Storm water discharges.* This permit authorizes storm water discharges to waters of the state from the regulated small MS4s identified in Section 1.2.1, except as excluded in Section 1.3.

1.2.2.2 *Non-storm water discharges.* The permittee is authorized to discharge the following non-storm water sources provided that the permitting authority has not determined these sources to be substantial contributors of pollutants to the permittee's MS4 that require a separate permit:

- Landscape irrigation
- Rising ground waters
- Uncontaminated ground water infiltration (infiltration is defined as water other than wastewater that enters a sewer system, including sewer service connections and foundation drains, from the ground through such means as defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow.)
- Uncontaminated pumped ground water
- Discharges from potable water sources
- Foundation drains
- Air conditioning condensate
- Springs
- Water from crawl space pumps
- Footing drains
- Lawn watering
- Flows from riparian habitats and wetlands
- Street wash water
- Discharges or flows from emergency fire fighting activities
- Individual residential car washing
- Dechlorinated residential swimming pool discharges

1.3 Limitations on Coverage

This permit does not authorize:

1.3.1 Discharges that are mixed with sources of non-storm water unless such non-storm water discharges are:

1.3.1.1 In compliance with a separate NPDES permit; or

1.3.1.2 Determined not to be a substantial contributor of pollutants to waters of the state.

1.3.2 Storm water discharges associated with industrial activities requiring separate NPDES permits as defined in 10 CSR 20-6.200.

1.3.3 Storm water discharges associated with construction activities requiring separate NPDES permits as defined in 10 CSR 20-6.200.

1.3.4 Storm water discharges currently covered under another permit.

1.3.5 Discharges that are likely to jeopardize the continued existence of any species that are listed as endangered or threatened under the Endangered Species Act (ESA) or result in the adverse modification or destruction of habitat that is designated as critical under the ESA.

1.3.6 Discharges that violate the National Historic Preservation Act.

1.3.7 Discharges that cause or contribute to a violation of instream water quality standards. The permittee's storm water management program and plan (SWMP) document must include a description of the best management practices (BMPs) that the permittee will use to ensure that violations will not occur. The department may require corrective action or an application for a site-specific permit or alternative general permit if an MS4 is determined to cause or create a significant potential for causing an instream exceedance of water quality standards.

1.3.8 Discharges of any pollutant into any water for which a Total Maximum Daily Load (TMDL) has been either established or approved by the EPA unless the permittee's discharge is consistent with that TMDL. This eligibility condition applies at the time the permittee submits an application for coverage. If conditions change after the permittee has permit coverage, the permittee may remain covered by the permit provided the permittee complies with the applicable requirements of Section 3. The permittee shall incorporate any limitations, conditions and requirements required by the TMDL, including monitoring frequency and reporting required, into the SWMP document in order to be eligible for permit coverage. For discharges for which the permittee is responsible but are not eligible for coverage under this permit, the permittee shall apply for and receive a site-specific or other applicable general NPDES permit prior to discharging.

1.4 Obtaining Authorization

1.4.1 To be authorized to discharge storm water from regulated small MS4s, the applicant/permittee shall submit an application and a written description of the permittee's SWMP in accordance with the deadlines presented in Section 2 of this permit.

1.4.2 The permittee shall submit the information required in Section 2 on the latest version of the application form (or photocopy thereof). The permittee's application shall be signed and dated by an authorized signatory.

1.4.3 Where the operator changes, or where a new operator is added after submittal of an application under Section 2, a new application shall be submitted in accordance with Section 2 prior to the change or addition.

2. Application Requirements

2.1 Deadlines for Application

If the MS4 is regulated pursuant to 10 CSR 20-6.200 then the operator is required to seek coverage under the Small MS4 General Permit or a site-specific MS4 permit as follows:

2.1.1 Existing small MS4 permittees shall submit renewal applications 180 days prior to permit expiration unless an extended due date has been granted by the department. If the MS4 permittee is submitting a renewal application for a revised general permit, they may submit the updated SWMP document separately from the application up to 90 days following public notice of the revised permit. If the MS4 is applying for a site-specific permit, the SWMP plan must be included with the application; and

2.1.2 MS4 operators that become subject to 10 CSR 20-6.200 following the 2010 census shall submit permit applications within 180 days following census publication.

2.2 Additional designations after the date of permit issuance

If the small MS4 is specially designated by the department after the date of permit issuance, then the small MS4 is required to:

2.2.1 Submit application for a site-specific MS4 permit or a small general MS4 permit (whichever applies) and a written description of the permittee's SWMP to the department within 180 days of notice.

2.3 Submitting a Late application

The permittee is not prohibited from submitting an application after the dates provided in Section 2.1. The department reserves the right to take appropriate enforcement actions for any unpermitted discharges.

3. **Special Conditions**

3.1 Discharges to Water Quality Impaired Waters

3.1.1 If discharges from the MS4 are upstream from a 303(d) listed (impaired) waterbody, the permittee shall, in consultation with the department:

3.1.1.1 Determine whether storm water discharges from any part of the MS4 significantly contribute pollutants directly or indirectly to a 303(d) listed (i.e., impaired) waterbody. If the permittee has discharges meeting this criteria, the permittee shall comply with Section 3.1.2. If the permittee does not, Section 3.1 does not apply to the permittee.

3.1.1.2 Determine whether a Total Maximum Daily Load (TMDL) has been developed and approved by EPA for the listed waterbody. If there is such a TMDL, the permittee shall comply with both Sections 3.1.2 and 3.1.3. If no TMDL has been finalized, Section 3.1.3 will apply when the TMDL is finalized and approved by EPA.

3.1.2 *Water Quality Controls for Discharges to Impaired Waterbodies.* The permittee's SWMP document required under Section 4 shall include a description of how the permittee's program will control the discharge of measurable pollutants of concern and ensure the permittee's discharges will not cause or contribute to instream exceedances of the water quality standards. This discussion shall specifically identify measures and BMPs that will collectively control the discharge of the pollutants of concern.

3.1.3 *Consistency with TMDL Allocations.* If a TMDL has been finalized and approved by EPA for any waterbody into which the permittee discharges, the permittee, shall:

3.1.3.1 Determine whether the approved TMDL is for a pollutant likely to be found in storm water discharges from the permittee's MS4;

3.1.3.2 Determine whether the TMDL includes a pollutant wasteload allocation (WLA) or other performance requirements specifically for storm water discharge from the permittee's MS4;

3.1.3.3 Determine whether the TMDL addresses a flow regime likely to occur during periods of storm water discharge;

3.1.3.4 After the determinations above have been made and if it is found that the permittee's MS4 shall implement specific WLA provisions of the TMDL, assess whether the WLAs are being met through implementation of existing storm water control measures or if additional control measures are necessary;

3.1.3.5 Document all control measures currently being implemented or planned to be implemented. The permittee shall also include a schedule of implementation for all planned controls and shall document the calculations or other evidence that shows that the WLA will be met;

3.1.3.6 Describe a monitoring program to determine whether the storm water controls are adequate to meet the WLA; and

3.1.3.7 If the evaluation shows that additional or modified controls are necessary, describe the measures to be taken and the schedule for their implementation. The permittee shall continue meeting the requirements of 3.1.3.4 through 3.1.3.7 for this permit duration until the department determines WLAs are being met or that water quality standards are being met.

3.2 Duty to Comply

3.2.1 The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of Missouri Clean Water Law and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or for denial of a permit renewal.

3.2.2 This permit authorizes only the activities described in this permit. Compliance with this permit may not be considered a shield from compliance with any local ordinance, State Regulation or State Law.

3.3 Continuation of the Expired General Permit

3.3.1 If this permit is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with 10 CSR 20-6.010 (10)(E) and remain in force and effect. Any permittee who was granted permit coverage prior to the expiration date will automatically remain covered by the continued permit until the earlier of:

3.3.1.1 Reissuance or replacement of this permit, at which time the permittee shall comply with the application conditions of the new permit to maintain authorization to discharge; or

3.3.1.2 Notice of Termination; or

3.3.1.3 Issuance of a site-specific permit for your discharges; or

3.3.1.4 A permit decision by the Director not to reissue this general permit, at which time the permittee shall seek coverage under an alternative general permit or a site-specific permit.

3.4 Need to Halt or Reduce Activity Not an Excuse

Actions by the permittee in an enforcement action to halt or reduce the permitted activity does not excuse compliance with this permit or any provision of the Missouri Clean Water Law.

3.5 Permit Transfers

This permit is not transferable to any other legal entity except after notice to the department. The department may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary.

3.6 Procedures for Modification or Revocation

3.6.1 If at any time the Missouri Department of Natural Resources determines that the quality of waters of the state may be better protected by requiring the owner/operator of the permitted site to apply for a site-specific permit, the department may require any person to obtain a site-specific operating permit [10 CSR 20-6.010 (13) and 10 CSR 20-6.200(5)].

3.6.2 The department may require the permittee to apply for and obtain a site-specific or different general permit if:

3.6.2.1 The permittee is not in compliance with the conditions of this general permit; or

3.6.2.2. The discharge no longer qualifies for this general permit due to changed site conditions and regulations; or

3.6.2.3 Information becomes available that indicates water quality standards have been or may be violated.

3.6.3 The permittee will be notified in writing of the need to apply for a site-specific permit or an alternative general permit. When a site-specific permit or alternative general permit is issued to the authorized permittee, the applicability of this general permit to the permittee will be terminated upon the effective date of the site-specific or alternative general permit, whichever the case may be. The permittee shall submit the appropriate forms to the department to terminate the permit that has been replaced.

3.7 Requiring a Site-Specific Permit or an Alternative General Permit

3.7.1 *Decision by the department.* The department may require any person authorized by this permit to apply for and/or obtain either a site-specific NPDES permit or an alternative NPDES general permit [10 CSR 20-6.200(6)]. Any interested person may petition the department to require a site-specific permit. Where the department requires the permittee to apply for a site-specific NPDES permit, the department will notify the permittee in writing that a permit application is required. This notification shall include a brief statement of the reasons for this decision, an application form(s), a statement setting a deadline for the permittee to file the application, and a statement that on the effective date of issuance or denial of the site-specific NPDES permit or the alternative general permit, coverage under this general permit shall automatically terminate in accordance with Section 3.6. The department may grant additional time to submit the application upon request of the applicant. If the permittee fails to submit a site-specific NPDES permit application in a timely manner as required by the department under this paragraph, then the applicability of this permit to the permittee is automatically terminated on the day specified by the department for application submittal.

3.7.2 *Request by permittee.* The permittee may apply for a site-specific permit in lieu of coverage under this general permit. In such cases, the permittee shall submit an application for the alternate permit in accordance with the requirements of 10 CSR 20-6.200, with reasons supporting the request. The request may be granted by issuance of any site-specific permit or an alternative general permit.

4. **Storm Water Management Programs and Plans**

4.1 Requirements

The permittee shall develop, implement, and enforce a storm water management program and plan (SWMP) designed to reduce the discharge of pollutants from the permittee's regulated small MS4 to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the Missouri Clean Water Law. The SWMP should include best management practices; control techniques and system, design, and engineering methods; and such other provisions as the permitting authority determines appropriate for the control of such pollutants. The permittee's SWMP document shall include the following information for each of the six minimum control measures described in Section 4.2 of this permit:

4.1.1 A description of the best management practices (BMPs) that the permittee will implement for each of the storm water minimum control measures;

4.1.2 The measurable goals for each of the BMPs including, as appropriate, the months and years in which the permittee will undertake required actions, including interim milestones and the frequency of the action;

4.1.3 The person primarily responsible for the SWMP, and the person(s) responsible for each minimum control measure if different from the primary responsible person; and

4.1.4 The permittee shall implement a program designed to protect water quality in potentially affected waters and ensure that the permitted activities do not cause a violation of the Water Quality Standards:

4.1.4.1 Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria; and

4.1.4.2 The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:

4.1.4.2.1 Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;

4.1.4.2.2 Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;

4.1.4.2.3 Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;

4.1.4.2.4 Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;

4.1.4.2.5 There shall be no significant human health hazard from incidental contact with the water;

4.1.4.2.6 There shall be no acute toxicity to livestock or wildlife watering;

4.1.4.2.7 Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community; and

4.1.4.2.8 Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

4.1.5 For facilities under the control of the permittee good housekeeping practices shall be maintained to keep solid waste from entry into waters of the state to the maximum extent practicable;

4.1.6 All fueling facilities under the control of the permittee shall adhere to applicable federal and state regulations concerning underground storage, above ground storage, and dispensers, including spill prevention, control and counter measures;

4.1.7 Substances regulated by federal law under the Resource Conservation and Recovery Act (RCRA) or the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) that are transported, stored, or used for maintenance, cleaning or repair by the permittee shall be managed according to the provisions of RCRA and CERCLA;

4.1.8 All paint, solvents, petroleum products and petroleum waste products (except fuels) under the control of the permittee shall be stored so that these materials are not exposed to storm water. Sufficient practices of spill prevention, control, and/or management shall be provided to prevent any spills of these pollutants from entering a water of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater;

4.1.9 In addition to the requirements listed above, the permittee shall document the decision process for each minimum control measure and include rationale statements for each BMP and measurable goal defined;

4.1.10 The permittee shall inspect any structures that function to prevent pollution of storm water or to remove pollutants from storm water and the facility in general to ensure that all BMPs are continually implemented and effective, and a monitoring schedule shall be specified in the SWMP document;

4.1.11 The SWMP document shall include interim milestones, measurable goals, an implementation schedule and measures for success; and

4.1.12 The permittee shall develop and fully implement each minimum control measure within five (5) years of receipt of its first MS4 permit. At each reissuance of this MS4 permit, the permittee shall comply with new or revised standards as soon as practicable, but no later than 5 years from the date of reissuance.

4.2 Minimum Control Measures

The six (6) minimum control measures that shall be included in the permittee's SWMP document are:

4.2.1 **Public Education and Outreach on Storm Water Impacts**

4.2.1.1 *Permit requirement.* The permittee shall implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and steps the public can take to reduce pollutants in storm water runoff. As part of the SWMP, the public education and outreach program shall include the following information, at a minimum:

4.2.1.1.1 The target pollutant sources the permittee's public education program is designed to address;

4.2.1.1.2 Identification of target audiences for the permittee's education program who are likely to have significant storm water impacts (including commercial, industrial and institutional entities);

4.2.1.1.3 A plan to inform individuals and households about steps they can take to reduce storm water pollution;

4.2.1.1.4 A plan to inform individuals and groups on how to become involved in the SWMP (with activities such as local stream and lake restoration activities);

4.2.1.1.5 The permittee's outreach strategy, including the mechanisms (e.g., printed brochures, newspapers, media, workshops, etc.) to reach target audiences, and how many people expected to be reached over the permit term; and

4.2.1.1.6 A plan to evaluate the success of this minimum control measure.

4.2.2 **Public Involvement/Participation**

4.2.2.1 *Permit requirement.* The permittee shall implement a public involvement/participation program that complies with State and local public notice requirements, and involve the public in the development and oversight of the SWMP , policies and procedures. As part of the SWMP document, the public involvement/participation program shall include the following information, at a minimum:

4.2.2.1.1 How the permittee has involved the public in the development and submittal of the application and SWMP document;

4.2.2.1.2 The target audiences for the permittee's public involvement program, including a description of the types of ethnic and economic groups engaged. The permittee is encouraged to actively involve all potentially affected stakeholder groups, including commercial and industrial businesses, trade associations, environmental groups, homeowners associations, and educational organizations, among others; and

4.2.2.1.3 The types of public involvement activities included in the permittee's program. Where appropriate, the permittee must consider the following types of public involvement activities:

4.2.2.1.3.1 Citizen representatives on a storm water management panel;

4.2.2.1.3.2 Public hearings;

4.2.2.1.3.3 Working with citizen volunteers willing to educate others about the program; and

4.2.2.1.3.4 Volunteer monitoring or stream/lake clean-up activities.

4.2.2.1.4 The permittee's plan to actively involve the public in the development and implementation of their program; and

4.2.2.1.5 The method for evaluating success of this minimum control measure.

4.2.3 **Illicit Discharge Detection and Elimination**

4.2.3.1 *Permit requirement. The permittee* shall develop, implement and enforce a program to detect and eliminate illicit discharges (as defined in 10 CSR 20-6.200) into the permittee's regulated small MS4. As part of the SWMP document, the permittee's illicit discharge detection and elimination program shall include the development and implementation of, at a minimum;

4.2.3.1.1 A storm sewer map showing the location of all outfalls and the names and location of all receiving waters of the state that receive discharges from those outfalls. The permittee shall describe the sources of information used for the map(s), and how the permittee plans to verify the outfall locations with field surveys. If already completed, the permittee shall describe how the map was developed and how the map will be regularly updated. The permittee shall make the map information available to the department upon request;

4.2.3.1.2 To the extent allowable under State, or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-storm water discharges into the permittee's storm sewer system and implement appropriate enforcement procedures and actions. The permittee shall identify the mechanism (ordinance or other regulatory mechanism) the permittee will use to effectively prohibit illicit discharges into the MS4. If the permittee needs to develop this mechanism, describe the permittee's plan and implementation schedule. If the permittee's ordinance or regulatory mechanism is already developed, include a copy of the relevant sections with the permittee's program; and

4.2.3.1.3 A plan and implementation schedule to detect and address non-storm water discharges, including discharges from illegal dumping and spills, to the permittee's system. The permittee's plan shall include dry weather field screening for non-storm water flows and field tests of selected chemical parameters as indicators of discharge sources. The plan shall also address on-site sewage disposal systems that flow into the permittee's storm drainage system. The permittee's description shall address the following, at a minimum:

4.2.3.1.3.1 Procedures for locating priority areas which include areas with higher likelihood of illicit connections (e.g., areas with older sanitary sewer lines, for example) or ambient sampling to locate impacted reaches;

4.4.3.1.3.2 Procedures for tracing the source of an illicit discharge, including the specific techniques the permittee will use to detect the location of the source;

4.2.3.1.3.3 Procedures for removing the source of the illicit discharge;

4.2.3.1.3.4 A plan to ensure through appropriate enforcement procedures, including fines, and actions that the permittee's illicit discharge ordinance (or other regulatory mechanism) is implemented;

4.2.3.1.3.5 A plan to inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste. The permittee shall describe how this plan will coordinate with their public education minimum measure and the pollution prevention/good housekeeping minimum measure programs; and

4.2.3.1.3.6 Procedures for program evaluation and assessment of this minimum control measure.

4.2.3.1.4 Address the following categories of non-storm water discharges or flows (i.e., illicit discharges) only if the permittee identifies them as significant contributors of pollutants to the permittee's regulated small MS4: landscape irrigation, rising ground waters, uncontaminated ground water infiltration (as defined in 10 CSR 20-6.200), uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, springs, water from crawl space pumps, footing drains, lawn watering, flows from riparian habitats and wetlands, and street wash water (discharges or flows from emergency fire fighting activities are excluded from the effective prohibition against non-storm water and need only be addressed where they are significant sources of pollutants to waters of the state).

4.2.3.1.5 The permittee may also develop a list of other similar occasional incidental non-storm water discharges (e.g. non-commercial or charity car washes, etc.) that will not be addressed as illicit discharges. These non-storm water discharges shall not be reasonably expected (based on information available to the permittees) to be significant sources of pollutants to the MS4, because of either the nature of the discharges or conditions the permittee has established for allowing these discharges to the permittee's MS4 (e.g., a charity car wash with appropriate controls on frequency, proximity to sensitive waterbodies, BMPs on the wash water, etc.). The permittee shall document in their SWMP any local controls or conditions placed on the discharges. The permittee shall include a provision prohibiting any individual non-storm water discharge that is determined to be contributing significant amounts of pollutants to the permittee's MS4.

4.2.3.1.6 The permittee should inventory, inspect and have enforcement authority for industries and commercial enterprises within their boundary that may contribute pollutants via storm water to the MS4.

4.2.4 **Construction Site Storm Water Runoff Control**

4.2.4.1 *Permit requirement.* The permittee shall develop, implement, and enforce a program to reduce pollutants in any storm water runoff to their regulated small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of storm water discharges from construction activity disturbing less than one acre shall be included in the program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. As part of the SWMP, the permittee's construction site storm water runoff control program shall include the development and implementation of, at a minimum:

4.2.4.1.1 An ordinance or other regulatory mechanism:

4.2.4.1.1.1 To require operators to implement erosion and sediment control BMPs at construction sites;

4.2.4.1.1.2 To include sanctions to ensure compliance, to the extent allowable under State or local law; and

4.2.4.1.1.3 If the permittee needs to develop this mechanism, the permittee shall describe the plan and scheduled implementation. If the permittee's ordinance or regulatory mechanism is already developed, the permittee shall include a copy of the relevant sections with the permittee's SWMP.

4.2.4.1.2 Requirements for construction site operators to control construction-site waste that may cause adverse impacts to water quality, such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste;

4.2.4.1.3 Procedures for the permittee to consider and review all pre-construction site plans for potential water quality impacts.

4.2.4.1.4 Procedures for the permittee to receive and consider information submitted by the public, including coordination with the permittee's public education program;

4.2.4.1.5 Procedures for the permittee to inspect sites and enforce control measures, including prioritization of site inspections;

4.2.4.1.6 A plan to ensure compliance with the permittee's erosion and sediment control regulatory mechanism, including the sanctions and enforcement mechanisms the permittee will use to ensure compliance and procedures for when certain sanctions will be used. Possible sanctions include non-monetary penalties (such a stop work orders), fines, bonding requirements, and/or permit denials for non-compliance; and

4.2.4.1.7 A description of how the permittee will evaluate the success of this minimum control measure.

4.2.5 **Post-Construction Storm Water Management in New Development and Redevelopment**

4.2.5.1 *Permit requirement.* The permittee shall develop, implement, and enforce a program to address the quality of long-term storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the permittee's regulated small MS4. The permittee's program shall ensure that controls are in place that have been designed and implemented to prevent or minimize water quality impacts by reasonably mimicking pre-construction runoff conditions on all affected new development projects and by effectively utilizing water quality strategies and technologies on all affected redevelopment projects, to the maximum extent practicable. The permittee shall assess site characteristics at the beginning of the construction design phase to ensure adequate planning for storm water program compliance. The purpose for this approach is to arrive at designs and practices that provide for most effective water quality treatment through infiltration, flow rates and similar site-design opportunities. As part of the SWMP document, the post-construction runoff control program shall include the following information, at a minimum:

4.2.5.1.1 A strategy to minimize water quality impacts, by reasonably mimicking pre-construction runoff conditions in affected new development and incorporating water quality protection in affected redevelopment projects to the maximum extent practicable, and include a combination of structural and/or non-structural BMPs appropriate for the permittee's community;

4.2.5.1.2 An ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State, or local law. If the permittee needs to develop a mechanism, the permittee shall describe the plan and a schedule for implementation. If the permittee's ordinance or regulatory mechanism is already developed, the permittee shall include a copy of the relevant sections with the SWMP document;

4.2.5.1.3 A plan to ensure adequate long-term operation and maintenance of selected BMPs, including types of agreements between the permittee and other parties such as the post-development landowners or regional authorities;

4.2.5.1.4 Specific priority areas for this program; and

4.2.5.1.5 Any non-structural BMPs in the permittee's program, including, as appropriate:

4.2.5.1.5.1 Policies and ordinances that provide requirements and standards to direct growth to identified areas, protect sensitive areas such as wetlands and riparian areas, maintain and/or increase open space (including a dedicated funding source for open space acquisition), provide buffers along sensitive water bodies, minimize impervious surfaces, and minimize disturbance of soils and vegetation;

4.2.5.1.5.2 Policies or ordinances that encourage infill development in higher density urban areas, and areas with existing storm sewer infrastructure, and redevelopment of Brownfield sites or grayfields which may include abandoned malls or similar properties;

4.2.5.1.5.3 Education programs for developers and the public about project designs that minimize water quality impacts; and

4.2.5.1.5.4 Other measures such as minimization of the percentage of impervious area after development, use of measures to minimize directly connected impervious areas, site designs that provide for integration of a variety of infiltration practices and source control measures often thought of as good housekeeping, preventive maintenance and spill prevention.

4.2.5.1.6 Any structural BMPs in the permittee's program, including, as appropriate:

4.2.5.1.6.1 Practices that provide infiltration, evapotranspiration or re-use such as grassed swales, bioretention cells, cisterns and green roofs; and

4.2.5.1.6.2 Redevelopment practices such as planter boxes, street retrofits, parking-lot infiltration and green roofs.

4.2.5.1.7 How the permittee will evaluate the success of this minimum measure.

4.2.6 **Pollution Prevention/Good Housekeeping for Municipal Operations**

4.2.6.1 *Permit requirement.* The permittee shall develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. As part of the SWMP, the pollution prevention/good housekeeping program shall include the following information, at a minimum:

4.2.6.1.1 A list of all municipal operations that are impacted by this operation and maintenance program. The permittee shall also include a list of industrial facilities the permittee owns or operates that are subject to NPDES permits for discharges of storm water associated with industrial activity that ultimately discharge to the permittee's MS4. The permittee shall include the permit number or a copy of the industrial application form for each facility;

4.2.6.1.2 Maintenance BMPs, maintenance schedules, and long-term inspection procedures for controls to reduce floatables and other pollutants to the permittee's regulated small MS4;

4.2.6.1.3 Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, and salt/sand storage locations and snow disposal areas the permittee operates;

4.2.6.1.4 Controls described in Sections 4.1.5 through 4.1.8 of this permit;

4.2.6.1.5 Procedures for the proper disposal of waste removed from the permittee's MS4 and area of jurisdiction, including dredged material, accumulated sediments, floatables, and other debris;

4.2.6.1.6 Procedures to ensure that new flood management projects are assessed for impacts on water quality and existing projects are assessed for incorporation of additional water quality protection devices or practices;

4.2.6.1.7 A government employee training program to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and storm water system maintenance. The permittee shall describe any existing, available materials the permittee plans to use such as those available from EPA, State or other organizations. The permittee shall describe how this training program will be coordinated with the outreach programs developed for the public information minimum measure and the illicit discharge minimum measure; and

4.2.6.1.8 How the permittee will evaluate the success of this minimum control measure.

4.3 Sharing Responsibility

Implementation of one or more of the minimum measures may be shared with another entity, or another entity assume responsibility for the measure if:

4.3.1 The other entity, in fact, implements the control measure;

4.3.2 The particular control measure, or component of that measure, is at least as stringent as the corresponding permit requirement; and

4.3.3 The other entity agrees to implement the control measure on permittee's behalf. Written acceptance of this obligation is required. This obligation shall be maintained as part of the documented description of the permittee's storm water management program. If the other entity agrees to report on the minimum measure, the permittee shall supply the other entity with the reporting requirements contained in Section 5.3 of this permit. If the other entity fails to implement the control measure on the permittee's behalf, then the permittee remains liable for any discharges due to that failure to implement.

4.4 Reviewing and Updating Storm Water Management Programs and Plans

4.4.1 *Storm Water Management Program and Written Plan (SWMP) Review:* The permittee shall do an annual review of the permittee's SWMP in conjunction with preparation of the annual report required under Section 5.3; and

4.4.2 *SWMP Update:* The permittee may change the SWMP during the life of the permit in accordance with the following procedures:

4.4.2.1 Changes adding (but not subtracting or replacing) components, controls, or requirements to the SWMP may be made at any time upon written notification to the department; and

4.4.2.2 Changes replacing an ineffective or unfeasible BMP specifically identified in the SWMP with an alternate BMP may be requested at any time. Unless denied by the department, changes proposed in accordance with the criteria below shall be deemed approved and may be implemented 60 days from submittal of the request. If request is denied, the department will send the permittee a written response giving a reason for the decision. The permittee's modification requests shall include the following:

4.4.2.2.1 An analysis of why the BMP is ineffective or infeasible (including cost prohibitive);

4.4.2.2.2 Expectations on the effectiveness of the replacement BMP; and

4.4.2.2.3 An analysis of why the replacement BMP is expected to achieve the goals of the BMP to be replaced.

4.4.2.3 Change requests or notifications must be made in writing and signed in accordance with Section 6.

4.4.3 *SWMP Updates Required by the Department*: Changes requested by the department must be made in writing, set forth the time schedule for the permittee to develop the changes, and offer the permittee the opportunity to propose alternative program changes to meet the objective of the requested modification. All changes required by the department will be made in accordance with 10 CSR 20-6.200. The department may require changes to the SWMP as needed to:

4.4.3.1 Address impacts on receiving water quality caused or affected by discharges from the Municipal Separate Storm Sewer System;

4.4.3.2 Include more stringent requirements necessary to comply with new federal or state statutory or regulatory requirements; or

4.4.3.3 Include such other conditions deemed necessary by the department to comply with the goals and requirements of the Missouri Clean Water Law.

4.4.4 *Transfer of Ownership, Continuing Authority, or Responsibility for SWMP Implementation:* The permittee shall implement the SWMP on all new areas added to the permittee's portion of the municipal separate storm sewer system (or for which the permittee becomes responsible for implementation of storm water quality controls) as expeditiously as practicable, but not later than one year from addition of the new areas. Implementation may be accomplished in a phased manner to allow additional time for controls that cannot be implemented immediately.

4.4.4.1 Within 90 days of a transfer of ownership, continuing authority, or responsibility for SWMP implementation, the permittee shall submit a revised plan, if necessary, for implementing the revised SWMP on all affected areas. The plan shall include revised schedules for implementation. Information on all new annexed areas and any resulting updates required to the SWMP shall be included in the annual report.

4.4.4.2 Only those portions of the SWMP specifically required as permit conditions shall be subject to the modification requirements of 10 CSR 20-6.200. Addition of components, controls, or requirements by the permittee(s) and replacement of an ineffective or infeasible BMP implementing a required component of the SWMP with an alternate BMP expected to achieve the goals of the original BMP shall be considered minor changes to the SWMP and not modifications to the permit.

5. Monitoring, Recordkeeping, and Reporting

5.1 Monitoring

5.1.1 The permittee shall evaluate program compliance, the appropriateness of identified best management practices, and progress toward achieving identified measurable goals. If the permittee discharges to a water for which a TMDL has been approved, the permittee will likely have additional monitoring requirements under Section 3.1.3.6.

5.1.2 When the permittee conducts monitoring at the permittee's regulated small MS4, the permittee is required to comply with the following:

5.1.2.1 *Representative monitoring.* Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity;

5.1.2.2 *Test Procedures.* Monitoring shall be conducted according to test procedures approved under 10 CSR 20-7.015(9)(A).

5.1.3 Records of monitoring information shall include:

5.1.3.1 The date, exact place, and time of sampling or measurements;

5.1.3.2 The names(s) of the individual(s) who performed the sampling or measurements;

5.1.3.3 The date(s) analyses were performed;

5.1.3.4 The names of the individuals who performed the analyses;

5.1.3.5 The analytical techniques or methods used; and

5.1.3.6 The results of such analyses.

5.1.4 *Discharge Monitoring Report.* TMDL monitoring results shall be reported to the department on a Discharge Monitoring Report form (DMR). Monitoring results collected as part of the routine illicit discharge detection and elimination program shall be documented, retained on site and made available upon request by EPA, DNR and the public.

5.2 Recordkeeping

5.2.1 The permittee shall retain records of all activities requiring recordkeeping by the SWMP and monitoring information, including, all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, copies of Discharge Monitoring Reports (DMRs), a copy of the NPDES permit, a copy of all ordinances, policies and formal procedures for all six minimum control measures and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application, or for the term of this permit, whichever is longer; and

5.2.2 The permittee shall submit the permittee's records to the department only when specifically asked to do so. The permittee shall retain a written description of the SWMP required by this permit (including a copy of the permit language) at a location accessible to the department. The permittee shall make the permittee's records, including the application and the description of the SWMP, available to the public if requested to do so in writing.

5.3 Reporting

The permittee shall submit annual reports, using the annual report form provided by the department, to the Director by July 28 of each year of the permit term. The report shall include:

5.3.1 The status of the permittee's compliance with permit conditions, an assessment of the appropriateness of the identified best management practices, progress towards achieving the statutory goal of reducing the discharge of pollutants to the MEP, and the measurable goals for each of the minimum control measures;

5.3.2 Results of information collected and analyzed, if any, during the reporting period, including monitoring data used to assess the success of the program at reducing the discharge of pollutants to the MEP;

5.3.3 A summary of the storm water activities the permittee plans to undertake during the next reporting cycle (including an implementation schedule);

5.3.4 Proposed changes to the permittee's SWMP, including changes to any BMPs or any identified measurable goals that apply to the program elements; and

5.3.5 Notice that the permittee is relying on another government entity to satisfy some of the permittee's permit obligations (if applicable).

6. **Standard Permit Conditions**

This permit includes Standard Permit Conditions attached as Part 1 to this permit.

7. **Definitions**

All definitions contained in 10 CSR 20-6.200 shall apply to this permit and are incorporated herein by reference. For convenience, simplified explanations of some regulatory/statutory definitions have been provided, but in the event of a conflict, the definition found in the regulation takes precedence.

Control Measure as used in this permit, refers to any Best Management Practice or other method used to prevent or reduce the discharge of pollutants to waters of the United States.

Director refers to the Director of Staff, Water Protection Program, Department of Natural Resources.

Discharge when used without a qualifier, refers to "discharge of a pollutant" as defined at 40 CFR 122.2.

Illicit Connection means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.

Illicit Discharge refers to any discharge to a municipal separate storm sewer that is not entirely composed of storm water, except discharges authorized under an NPDES permit (other than the NPDES permit for discharges from the MS4) and discharges resulting from emergency fire fighting activities.

Maximum Extent Practicable refers to the technology-based discharge standard for Municipal Separate Storm Sewer Systems to reduce pollutants in storm water discharges that was established by CWA §402(p). A discussion of how it applies to regulated small MS4s is found at 40 CFR 122.34.

MS4 is an acronym for "Municipal Separate Storm Sewer System" and is used to refer to either a Large, Medium, or Small Municipal Separate Storm Sewer System (e.g. "the Springfield MS4").

Permittee, as used in this permit refers to the holder of this general permit.

Site-specific permit, also means individual permit.

Storm Water, means storm water runoff, snow melt runoff, and surface runoff and drainage.

Storm Water Management Program and Plan (SWMP) refers to a comprehensive documented program and plan to manage the quality of storm water discharged from the municipal separate storm sewer system.

Missouri Department of Natural Resources
Fact Sheet – Master General Permit Renewal for Small MS4s

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollution Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of storm water from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Permits in Missouri are issued by the Director of the Missouri Department of Natural Resources (department) under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended). NPDES operating permits are issued for a period of five (5) years unless otherwise specified.

A Fact Sheet gives pertinent information regarding the applicable regulations, rational for the development of the NPDES Missouri State Operating Permit (operating permit), and the public participation process for operating permit listed below.

A Fact Sheet is not an enforceable part of an operating permit.

This Fact Sheet is for a Major ☐, Minor ☐, Industrial Facility ☐; Variance ☐;
Master General Permit ☒; and/or permit with widespread public interest ☐.

Part I - Facility Information

The following Facility Information shall appear on the coverage document issued to a General Permit Covered Facility.

NPDES #:
Facility Name:
Facility Address:
Owner's Name:
Owner's Address:

Facility Region:
Facility County:

Facility Type:
Facility SIC Code: 9511
Facility NAICS Code: 924110

Facility Description: Discharges from Regulated Small Municipal Separate Storm Sewer Systems

Comments: _____

Part II - Outfalls

It is adequate to submit a representative subset of outfall information with the application. Specifically, outfalls needed for the application should be representative of discharges nearest the MS4's jurisdictional boundaries or nearest the receiving classified waters running through the MS4's jurisdiction. The more comprehensive outfall information and maps required for the MS4's illicit discharge program shall be retained on site and made available to EPA, DNR and the public upon request.

A full description of the representative outfalls in the application shall appear on the coverage document issued to a General Permit Covered Facility. The following information is required for each outfall.

Outfall #001
Legal Description: ¼, ¼, Section, Township, Range, Direction
Latitude/Longitude: +0000000/-0000000 (Degrees, Minutes, Seconds)
Receiving Stream: Name & Classification
First Classified Stream and ID: Name, Class, Water Body ID – currently provided by the Department
USGS Basin & Sub-watershed No.: (# – #) [14 digit USGS Hydrologic Unit Code (HUC)]

This permit allows regulated MS4s to discharge storm water to the following waters, depending on location of the regulated MS4. Missouri or Mississippi River, lakes or reservoirs, losing streams, metropolitan no-discharge waters, special streams, subsurface waters and other waters of the state.

10 CSR 20-7.031 Missouri Water Quality Standards, the department defines the Clean Water Commission water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses."

Part III - Rationale and Derivation of Effluent Limitations & Permit Conditions

INTRODUCTION:
This is a municipal storm water discharge permit which authorizes the discharge of storm water from regulated small municipal separate storm sewer systems (MS4s). The permit also authorizes the discharges or flows from emergency fire fighting activities. The permit does **not** authorize any additional non-storm water discharges, such as: process wastewater, storm water discharges that are mixed with process wastewater, or storm water associated with industrial activity, as defined in 10 CSR 20-6.200 or other discharges identified in Section 1.3 of the permit.

The permit is intended to authorize discharge of storm water even as jurisdictional boundaries change through the life of the permit. This rationale will explain which entities are covered under this permit, how to apply for coverage, and what the basic permit requirements are, including the general requirement of a storm water management program and written plan (SWMP.)

This permit authorizes only the activities described in this permit. Compliance with this permit may not be considered a shield from compliance with any local ordinance, State Regulation or State Law.

TYPES OF ENTITIES COVERED UNDER THIS PERMIT:
This permit is intended to cover new or existing discharges composed entirely of storm water from small MS4s required by State regulation to obtain a permit. This permit is not intended to cover the discharge of storm water from MS4s that have been designated by the department as requiring coverage under an alternative general permit or a site-specific permit.

The criteria for permit coverage are contained in the Missouri Storm Water Regulations 10 CSR 20-6.200. In general, this includes any municipality, and federal or state facility/organization that owns or operates a regulated small MS4 as defined in 10 CSR 20-6.200 (i.e. serving a population of 1,000 or greater and located fully or partially within an urbanized area as determined by the latest Decennial Census by the Bureau of Census, or having a population of 10,000 or greater if outside an urbanized area.) MS4s discharging entirely to combined sewer systems are exempt based on their coverage under NPDES wastewater permits.

APPLICATION REQUIREMENTS:
The regulated small MS4 is required to seek coverage under the Small MS4 General Permit or a site-specific permit by submitting completed application forms (Forms M & K if an individual applicant or Forms M & L if applying as a co-permittee), a jurisdictional boundary map showing perimeter outfall locations and a written description of the operator's SWMP. Note: If the small MS4 is seeking renewal of the revised general permit, they may submit the updated SWMP document separately up to 90 days following public notice of the general permit. Note: Form M is currently being revised to include additional information for site-specific small MS4s. (The regulated medium or large MS4 must submit new or renewal applications according to requirements identified in 10 CSR 20-6.200.) MS4 operators that become subject to 10 CSR 20-6.200 following the 2010 census shall submit permit applications within 180 days following census publication. MS4 operators specially designated by the department shall submit permit applications within 180 days following notice by the department.

STORM WATER MANAGEMENT PROGRAM (SWMP):
A docuemented and implementable plan to schedule activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the state.

This permit in accordance with 10 CSR 20-6.200 and 40 CFR Parts 9, 122, 123, and 124, requires the permittee to develop and implement a SWMP. The SWMP shall address the six minimum control measures - public education and outreach, public involvement/participation process, illicit discharge detection and elimination, construction site storm water runoff control, post-construction storm water management and pollution prevention/good housekeeping for municipal operations. The SWMP shall include, but not limited to, best management practices, pertinent local regulations, interim milestones, measurable goals, measures of success and responsible persons for each of the measurable goals.

ORDINANCES:
To the extent allowable under State or local law, ordinances (or other regulatory mechanisms) are required to be developed, implemented and enforced within five years of initial permit issuance under the following sections:

1. Illicit discharge detection and elimination – to prohibit non-storm water discharges into the storm sewer system, and implement appropriate enforcement procedures and actions
2. Construction site storm water runoff control – to require erosion and sediment controls at construction sites, as well as sanctions to ensure compliance
3. Post-construction – to address post-construction runoff from new development and redevelopment projects, and sanctions to ensure compliance

SWMP UPDATES REQUIRED BY THE DEPARTMENT:
Changes requested by the department must be made in writing, set forth the time schedule for the permittee to develop the changes, and offer the permittee the opportunity to propose alternative program changes to meet the objective of the requested modification. All changes required by the department will be made in accordance with 10 CSR 20-6.200. The department may require changes to the SWMP as needed to: include components deemed necessary by the department to comply with the goals and requirements of the permit and Missouri Clean Water Law; address impacts on receiving water quality caused or affected by discharges from the MS4; or include more stringent requirements necessary to comply with new federal or state statutory or regulatory requirements.

The permittee may also change the SWMP during the life of the permit in accordance with procedures described in Section 4.4 of the permit.

ANNUAL REPORTING:
The permittee is expected to annually review and provide a written report on their SWMP in accordance with Sections 4.4 and 5.3 of the permit. The permittee shall submit the report by July 28 of each year utilizing the department's annual report form MO 78-1846 or latest version.

MONITORING:
Sampling and testing of storm water for specific parameters is not required on a routine basis under this permit. However, the department reserves the right to require sampling and testing, on a case-by-case basis. As per [10 CSR 20-2.010(78)], a wasteload allocation is the amount of pollutants each discharger is allowed by the department to release into a given stream after the department has determined to total amount of pollutant that may be discharged into that stream without endangering its water quality.

Usually wasteload allocations are not calculated. All permittees are subject to the Maximum Extent Practicable per [10 CSR 20-6.200] & [40 CFR 122]. However, if a storm water-based TMDL and WLA have been put into place for any waterbody into which the permittee discharges, monitoring may be required for discharges affecting that waterbed. Regulated MS4s must have procedures in place to investigate findings of illicit discharges further, also potentially resulting in monitoring. In such cases, the permittee shall follow regulations in 10 CSR 20 Chapter 6 and monitoring requirements set forth in the permit.

303(d) LIST, TOTAL MAXIMUM DAILY LOAD (TMDL) AND WASTELOAD ALLOCATIONS
Section 303(d) of the federal Clean Water Act requires that each state identify waters that are not meeting water quality standards and for which adequate water pollution controls have not been required. Water quality standards protect such beneficial uses of water as whole body contact (such as swimming), maintaining fish and other aquatic life, and providing drinking water for people, livestock and wildlife. The 303(d) list helps state and federal agencies keep track of waters that are impaired but not addressed by normal water pollution control programs.

A TMDL is a calculation of the maximum amount of a given pollutant that a body of water can absorb before its water quality is affected. If a water body is determined to be impaired as listed on the 303(d) list, then a watershed management plan will be developed that shall include the TMDL calculation

PERMIT REQUIREMENTS:
The permit includes additional requirements that apply if a Total Maximum Daily Load (TMDL) has been approved for any waterbody into which the permittee discharges (Section 3.1. of the permit). In general, these requirements do not, in themselves, dictate additional measures that must be taken by the permittee. Instead, the permit requires the permittee to comply with any requirements included in a TMDL that address storm water discharges covered in the permit. New requirements affecting the permittee's discharges could be in the form of additional narrative requirements for implementation of BMPs, or in the form of a Waste Load Allocation (WLA) that prescribes a specific quantitative limit for pollution from a specific source.

The permittee may maintain coverage under the general permit provided they comply with the applicable requirements outlined above. The Department reserves the right to require site-specific or alternate general permit coverage.

ANTI-BACKSLIDING:
A provision in the Federal Regulations [CWA §303(d)(4); CWA §402(c); CFR §122.44(I)] that requires a reissued permit to be as stringent as the previous permit with some exceptions.

All limits, requirements, and/or conditions in this Fact Sheet are at least as protective as those previously established; therefore, backsliding does not apply.

ANTIDEGRADATION:
Policies which ensure protection of water quality for a particular water body where the water quality exceeds levels necessary to protect fish and wildlife propagation and recreation on and in the water. This also includes special protection of waters designated as outstanding natural resource waters. Antidegradation plans are adopted by each State to minimize adverse effects on water.

As per [10 CSR 20-7.031(2)(D)], the three (3) levels of protection provided by the antidegradation policy in subsections (A), (B), and (C) of this section shall be implemented according to procedures developed by the department. On April 20, 2007, the Missouri Clean Water Commission approved *Missouri Antidegradation Rule and Implementation Procedure* (Antidegradation Rule), which is applicable to new or upgraded/expanded facilities. The implementation of the Antidegradation Rule will be implemented upon promulgation, which is tentatively scheduled for August 2008.

COMPLIANCE AND ENFORCEMENT:
Action taken by the department to resolve violations of the Missouri Clean Water Law, its implementing regulations, and/or any terms and condition of an operating permit.

Dischargers of storm water from regulated small MS4s, as defined in the Missouri Storm Water Regulations (10 CSR 20-6.200) who do not obtain coverage under this or other Missouri general permits, or under a site-specific NPDES permit, will be in violation of the Missouri Clean Water Law and its implementing regulations and subject to civil penalties of up to $10,000 per violation per day. For entities covered under a NPDES permit, failure to comply with any NPDES permit requirement also constitutes a violation of the Missouri Clean Water Law and its implementing regulations.

Part IV - Administrative Requirements

PUBLIC NOTICE AND COVERAGE FOR AN INDIVIDUAL ENTITY:
As per the Missouri Clean Water Law, the Missouri Clean Water Commission, and the federal Clean Water Act, persons wishing to comment on Missouri State Operating Permits are directed to do so by a department-approved Public Notice coversheet. This Public Notice coversheet is attached to a Missouri State Operating Permit during the Public Notice period.

The need for an individual public notification process shall be determined and identified in the general permit. [10 CSR 20-6.020(1)(C)5.]

Applicable ☒;
Issuance of coverage to an individual facility under this Master General Permit shall be placed on Public Notice for 30 days in accordance with 10 CSR 20-6.020(1)(B) & (C).

Not Applicable ☐;
Public Notice is not required for issuance of coverage under this Master General Permit to individual facilities for the first time.

The Public Notice period for this operating permit is tentatively schedule to begin on January 11, 2008.

Date of Fact Sheet: March 20, 2008

RUTH WALLACE, ES-III
WATER PROTECTION PROGRAM
ruth.wallace@dnr.mo.gov

MICHAEL ABBOTT, ES-III
WATER PROTECTION PROGRAM
michael.abbott@dnr.mo.gov

Appendix 3

City Code Chapters

Chapter 12 Floodplain Management

Chapter 12 FLOODPLAIN MANAGEMENT REGULATIONS [1]

ARTICLE I. - STATUTORY AUTHORIZATION, FINDINGS OF FACT, AND PURPOSES
ARTICLE II. - GENERAL PROVISIONS
ARTICLE III. - ADMINISTRATION
ARTICLE IV. - PROVISIONS FOR FLOOD HAZARD REDUCTION
ARTICLE V. - FLOODPLAIN MANAGEMENT VARIANCE PROCEDURES
ARTICLE VI. - PENALTIES FOR VIOLATION
ARTICLE VII. - AMENDMENTS
ARTICLE VIII. - DEFINITIONS

FOOTNOTE(S):

— (1) —

Editor's note— *Article 1 of Ord. No. 4254, adopted Aug. 15, 2011, repealed ch. 12 in its entirety and enacted similar provisions to read as herein set out. Former ch. 12 derived from Ord. No. 2454, adopted Dec. 7, 1998.* *(Back)*

Cross reference— *Buildings, ch. 7; civil defense, ch. 10; stormwater management regulations, ch. 23; streets and sidewalks, ch. 24; subdivision regulations, ch. 25; travel trailer camps, mobile homes and mobile home parks, ch. 27; zoning, ch. 30; community development department, § 2-46; stormwater management system design requirements, § 23-10.* *(Back)*

State Law reference— *Watershed protection and flood prevention, RSMo, § 278.160 et seq.* *(Back)*

ARTICLE I. STATUTORY AUTHORIZATION, FINDINGS OF FACT, AND PURPOSES

Sec. 12-1. Statutory authorization.
Sec. 12-2. Findings of fact.
Sec. 12-3. Statement of purpose.

Sec. 12-1. Statutory authorization.

The Legislature of the State of Missouri has in RSMo § 82.010 and RSMo § 82.020 delegated the responsibility to local governmental units to adopt floodplain management regulations designed to protect the health, safety, and general welfare. Therefore, the city council of the City of Cape Girardeau, Missouri, ordains as follows.

(Ord. No. 4254, art. 1, 8-15-11)

Sec. 12-2. Findings of fact.

(a)

Flood losses resulting from periodic inundation. The special flood hazard areas of the City of Cape Girardeau, Missouri, are subject to inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base; all of which adversely affect the public health, safety and general welfare.

(b) *General causes of the flood losses.* These flood losses are caused by:

(1) The cumulative effect of development in any delineated floodplain causing increases in flood heights and velocities; and

(2) The occupancy of flood hazard areas by uses vulnerable to floods, hazardous to others, inadequately elevated, or otherwise unprotected from flood damages.

(c) *Methods used to analyze flood hazards.* The flood insurance study (FIS) that is the basis of this chapter uses a standard engineering method of analyzing flood hazards which consist of a series of interrelated steps.

(1) Selection of a base flood that is based upon engineering calculations which permit a consideration of such flood factors as its expected frequency of occurrence, the area inundated, and the depth of inundation. The base flood selected for this chapter is representative of large floods which are characteristic of what can be expected to occur on the particular streams subject to this chapter. It is in the general order of a flood which could be expected to have a one (1) percent chance of occurrence in any one (1) year as delineated on the Federal Insurance Administrator's FIS, and illustrative materials dated September 29, 2011, as amended, and any future revisions thereto.

(2) Calculation of water surface profiles are based on a standard hydraulic engineering analysis of the capacity of the stream channel and overbank areas to convey the regulatory flood.

(3) Computation of a floodway required to convey this flood without increasing flood heights more than one (1) foot at any point.

(4) Delineation of floodway encroachment lines within which no development is permitted that would cause any increase in flood height.

(5) Delineation of flood fringe, i.e., that area outside the floodway encroachment lines, but still subject to inundation by the base flood.

(Ord. No. 4254, art. 1, 8-15-11)

Sec. 12-3. Statement of purpose.

It is the purpose of this chapter to promote the public health, safety, and general welfare; to minimize those losses described in article I, section 12-2(1); to establish or maintain the city's eligibility for participation in the National Flood Insurance Program (NFIP) as defined in 44 Code of Federal Regulations (CFR) 59.22(a)(3); and to meet the requirements of 44 CFR 60.3(d) by applying the provisions of this chapter to:

(1) Restrict or prohibit uses that are dangerous to health, safety, or property in times of flooding or cause undue increases in flood heights or velocities;

(2) Require uses vulnerable to floods, including public facilities that serve such uses, be provided with flood protection at the time of initial construction; and

(3) Protect individuals from buying lands that are unsuited for the intended development purposes due to the flood hazard.

(Ord. No. 4254, art. 1, 8-15-11)

ARTICLE II. GENERAL PROVISIONS

Sec. 12-4. Lands to which chapter applies.
Sec. 12-5. Floodplain administrator.
Sec. 12-6. Compliance.
Sec. 12-7. Abrogation and greater restrictions.
Sec. 12-8. Interpretation.
Sec. 12-9. Warning and disclaimer of liability.
Sec. 12-10. Severability.

Sec. 12-4. Lands to which chapter applies.

This chapter shall apply to all lands within the jurisdiction of the City of Cape Girardeau, Missouri, identified as numbered and unnumbered A zones and AE zones, on the Flood Insurance Rate Map (FIRM) Cape Girardeau County, Missouri, on map panels 29031C0163E, 29031C0175E, 29031C0251E, 29031C0252E, 29031C0253E, 29031C0254E, 29031C0256E, 29031C0258E, 29031C0259E, 29031C0261E, 29031C0262E, 29031C0263E, 29031C0264E, 29031C0266E, 29031C0267E, 29031C0268E, 29031C0269E, 29031C0278E, 29031C0352E, 29031C0355E, and 29031C0356E, dated September 29, 2011, as amended, and any future revisions thereto. In all areas covered by this chapter, no development shall be permitted except through the issuance of a floodplain development permit, granted by the city council of the City of Cape Girardeau or its duly designated representative under such safeguards and restrictions as the city council of the City of Cape Girardeau or the designated representative may reasonably impose for the promotion and maintenance of the general welfare, health of the inhabitants of the city, and as specifically noted in article IV.

(Ord. No. 4254, art. 1, 8-15-11)

Sec. 12-5. Floodplain administrator.

The city manager or his designee is hereby designated as the floodplain administrator under this chapter.

(Ord. No. 4254, art. 1, 8-15-11)

Sec. 12-6. Compliance.

No development located within the special flood hazard areas of this city shall be located, extended, converted, or structurally altered without full compliance with the terms of this chapter and other applicable regulations.

(Ord. No. 4254, art. 1, 8-15-11)

Sec. 12-7. Abrogation and greater restrictions.

It is not intended by this chapter to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this chapter imposes greater restrictions, the provisions of this chapter shall prevail. All other ordinances inconsistent with this chapter are hereby repealed to the extent of the inconsistency only.

(Ord. No. 4254, art. 1, 8-15-11)

Sec. 12-8. Interpretation.

In their interpretation and application, the provisions of this chapter shall be held to be minimum requirements, shall be liberally construed in favor of the governing body, and shall not be deemed a limitation or repeal of any other powers granted by state statutes.

(Ord. No. 4254, art. 1, 8-15-11)

Sec. 12-9. Warning and disclaimer of liability.

The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on engineering and scientific methods of study. Larger floods may occur on rare occasions or the flood heights may be increased by manmade or natural causes, such as ice jams and bridge openings restricted by debris. This chapter does not imply that areas outside the floodway and flood fringe or land uses permitted within such areas will be free from flooding or flood damage. This chapter shall not create a liability on the part of the City of Cape Girardeau, any officer or employee thereof, for any flood damages that may result from reliance on this chapter or any administrative decision lawfully made thereunder.

(Ord. No. 4254, art. 1, 8-15-11)

Sec. 12-10. Severability.

If any section, clause, provision, or portion of this chapter is adjudged unconstitutional or invalid by a court of appropriate jurisdiction, the remainder of this chapter shall not be affected thereby.

(Ord. No. 4254, art. 1, 8-15-11)

ARTICLE III. ADMINISTRATION

Sec. 12-11. Floodplain development permit.
Sec. 12-12. Designation of floodplain administrator.
Sec. 12-13. Duties and responsibilities of floodplain administrator.
Sec. 12-14. Application for floodplain development permit.

Sec. 12-11. Floodplain development permit.

A floodplain development permit shall be required for all proposed construction or other development, including the placement of manufactured homes, in the areas described in article II, section 12-4. No person, firm, corporation, or unit of government shall initiate any development or substantial improvement or cause the same to be done without first obtaining a separate floodplain development permit for each structure or other development.

(Ord. No. 4254, art. 1, 8-15-11)

Sec. 12-12. Designation of floodplain administrator.

The city manager or his designee is hereby appointed as floodplain administrator to administer and implement the provisions of this chapter.

(Ord. No. 4254, art. 1, 8-15-11)

Sec. 12-13. Duties and responsibilities of floodplain administrator.

Duties of the floodplain administrator shall include, but not be limited to:

(1) Review of all applications for floodplain development permits to assure that sites are reasonably safe from flooding and that the floodplain development permit requirements of this chapter have been satisfied;

(2) Review of all applications for floodplain development permits for proposed development to assure that all necessary permits have been obtained from federal, state, or local governmental agencies from which prior approval is required by federal, state, or local law;

(3) Review all subdivision proposals and other proposed new development, including manufactured home parks or subdivisions, to determine whether such proposals will be reasonably safe from flooding;

(4) Issue floodplain development permits for all approved applications;

(5) Notify adjacent communities and the Missouri State Emergency Management Agency (MO SEMA) to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency (FEMA);

(6) Assure that the flood carrying capacity is not diminished and shall be maintained within the altered or relocated portion of any watercourse;

(7) Verify and maintain a record of the actual elevation (in relation to mean sea level) of the lowest floor, including basement, of all new or substantially improved structures;

(8) Verify and maintain a record of the actual elevation (in relation to mean sea level) that the new or substantially improved nonresidential structures have been floodproofed;

(9) When floodproofing techniques are utilized for a particular nonresidential structure, the floodplain administrator shall require certification from a registered professional engineer or architect.

(Ord. No. 4254, art. 1, 8-15-11)

Sec. 12-14. Application for floodplain development permit.

To obtain a floodplain development permit, the applicant shall first file an application in writing on a form furnished for that purpose. Every floodplain development permit application shall:

(1)

Describe the land on which the proposed work is to be done by lot, block and tract, house and street address, or similar description that will readily identify and specifically locate the proposed structure or work;

(2) Identify and describe the work to be covered by the floodplain development permit;

(3) Indicate the use or occupancy for which the proposed work is intended;

(4) Indicate the assessed value of the structure and the fair market value of the improvement;

(5) Specify whether development is located in designated flood fringe or floodway;

(6) Identify the existing base flood elevation and the elevation of the proposed development;

(7) Give such other information as reasonably may be required by the floodplain administrator;

(8) Be accompanied by plans and specifications for proposed construction; and

(9) Be signed by the permittee or his authorized agent who may be required to submit evidence to indicate such authority;

(10) Be accompanied by the appropriate fee as outlined on the city fee schedule;

(11) Be valid for three (3) years after the date of issuance. If the floodplain development for which the permit was issued is not completed within three (3) years, the permittee may request a renewal of the said permit. The permit renewal fee must be paid in full at the time of the renewal request. The permit renewal fees are outlined on the city fee schedule. The city manager or his designee has the right to approve or deny any permit renewal request.

(Ord. No. 4254, art. 1, 8-15-11)

ARTICLE IV. PROVISIONS FOR FLOOD HAZARD REDUCTION

Sec. 12-15. General standards.
Sec. 12-16. Specific standards.
Sec. 12-17. Manufactured homes.
Sec. 12-18. Floodway.
Sec. 12-19. Recreational vehicles.

Sec. 12-15. General standards.

(1) No permit for floodplain development shall be granted for new construction, substantial improvements, and other improvements, including the placement of manufactured homes, within any numbered or unnumbered A zones and AE zones, unless the conditions of this section are satisfied.

(2) All areas identified as unnumbered A zones on the FIRM are subject to inundation of the 100 -year flood; however, the base flood elevation is not provided. Development within unnumbered A zones is subject to all provisions of this chapter. If flood insurance study data

is not available, the city shall obtain, review, and reasonably utilize any base flood elevation or floodway data currently available from federal, state, or other sources.

(3) Until a floodway is designated, no new construction, substantial improvements, or other development, including fill, shall be permitted within any numbered A zone or AE zone on the FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one (1) foot at any point within the city.

(4) All new construction, subdivision proposals, substantial improvements, prefabricated structures, placement of manufactured homes, and other developments shall require:

(a) Design or adequate anchorage to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;

(b) Construction with materials resistant to flood damage;

(c) Utilization of methods and practices that minimize flood damages;

(d) All electrical, heating, ventilation, plumbing, air-conditioning equipment, and other service facilities be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding;

(e) New or replacement water supply systems and/or sanitary sewage systems be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into floodwaters, and on-site waste disposal systems be located so as to avoid impairment or contamination; and

(f) Subdivision proposals and other proposed new development, including manufactured home parks or subdivisions, located within special flood hazard areas are required to assure that:

1. All such proposals are consistent with the need to minimize flood damage;
2. All public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damage;
3. Adequate drainage is provided so as to reduce exposure to flood hazards; and
4. All proposals for development, including proposals for manufactured home parks and subdivisions, of five (5) acres or fifty (50) lots, whichever is lesser, include within such proposals base flood elevation data.

(5) Storage, material, and equipment.

(a) The storage or processing of materials within the special flood hazard area that are in time of flooding buoyant, flammable, explosive, or could be injurious to human, animal, or plant life is prohibited.

(b) Storage of other material or equipment may be allowed if not subject to major damage by floods, if firmly anchored to prevent flotation, or if readily removable from the area within the time available after a flood warning.

(6) Agricultural structures. Structures used solely for agricultural purposes in connection with the production, harvesting, storage, drying, or raising of agricultural commodities, including the raising of livestock, may be constructed at-grade and wet-floodproofed provided there is no human habitation or occupancy of the structure; the structure is of single-wall design; there is no permanent retail, wholesale, or manufacturing use included in the structure; a variance has been granted from the floodplain management requirements of this chapter; and a floodplain development permit has been issued.

(7) Accessory structures. Structures used solely for parking and limited storage purposes, not attached to any other structure on the site, of limited investment value, and not larger than

four hundred (400) square feet, may be constructed at-grade and wet-floodproofed provided there is no human habitation or occupancy of the structure; the structure is of single-wall design; a variance has been granted from the standard floodplain management requirements of this chapter; and a floodplain development permit has been issued.

(Ord. No. 4254, art. 1, 8-15-11)

Sec. 12-16. Specific standards.

(1) In all areas identified as numbered and unnumbered A zones and AE zones, where base flood elevation data have been provided, as set forth in article IV, section 12-15(2), the following provisions are required:

(a) *Residential construction.* New construction or substantial-improvement of any residential structure, including manufactured homes, shall have the lowest floor, including basement, elevated to one (1) foot above base flood elevation.

(b) *Nonresidential construction.* New construction or substantial improvement of any commercial, industrial, or other nonresidential structure, including manufactured homes, shall have the lowest floor, including basement, elevated to one (1) foot above the base flood elevation or, together with attendant utility and sanitary facilities, be floodproofed so that below the base flood elevation the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. A registered professional engineer or architect shall certify that the standards of this subsection are satisfied. Such certification shall be provided to the floodplain administrator as set forth in article III, section 12-13(9).

(c) Require, for all new construction and substantial-improvements, that fully enclosed areas below lowest floor used solely for parking of vehicles, building access, or storage in an area other than a basement and that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:

1. A minimum of two (2) openings having a total net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding shall be provided; and
2. The bottom of all opening shall be no higher than one (1) foot above grade. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

(Ord. No. 4254, art. 1, 8-15-11)

Sec. 12-17. Manufactured homes.

(1) All manufactured homes to be placed within all unnumbered and numbered A zones and AE zones, on the city's FIRM shall be required to be installed using methods and practices that minimize flood damage. For the purposes of this requirement, manufactured homes must be elevated and anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors.

(2) Require manufactured homes that are placed or substantially improved within unnumbered or numbered A zones and AE zones, on the city's FIRM on sites:

(a) Outside of manufactured home park or subdivision;

(b) In a new manufactured home park or subdivision;

(c) In an expansion to and existing manufactured home park or subdivision; or

(d) In an existing manufactured home park or subdivision on which a manufactured home has incurred substantial damage as the result of a flood,

be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to one (1) foot above the base flood elevation and be securely attached to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

(3) Require that manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision within all unnumbered and numbered A zones and AE zones, on the city's FIRM, that are not subject to the provisions of article IV, section 12-17(2) of this chapter, be elevated so that either:

(a) The lowest floor of the manufactured home is at one (1) foot above the base flood level; or

(b) The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than thirty-six (36) inches in height above grade and be securely attached to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

(Ord. No. 4254, art. 1, 8-15-11)

Sec. 12-18. Floodway.

Located within areas of special flood hazard established in article II, section 12-4 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters that carry debris and potential projectiles, the following provisions shall apply:

(1) The city shall select and adopt a regulatory floodway based on the principle that the area chosen for the regulatory floodway must be designed to carry the waters of the base flood without increasing the water surface elevation of that flood more than one (1) foot at any point.

(2) The city shall prohibit any encroachments, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the city during the occurrence of the base flood discharge.

(3) If article IV, section 12-18(2) is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of article IV.

(4) In unnumbered A zones, the city shall obtain, review, and reasonably utilize any base flood elevation or floodway data currently available from federal, state, or other sources as set forth in article IV, section 12-15(2).

(Ord. No. 4254, art. 1, 8-15-11)

Sec. 12-19. Recreational vehicles.

(1) Require that recreational vehicles placed on sites within all unnumbered and numbered A zones and AE zones on the city's FIRM either:

(a)

Be on the site for fewer than one hundred eighty (180) consecutive days; or

(b) Be fully licensed and ready for highway use*; or

(c) Meet the permitting, elevation, and the anchoring requirements for manufactured homes of this chapter.

* A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick-disconnect type utilities and security devices, and has no permanently attached additions.

(Ord. No. 4254, art. 1, 8-15-11)

Cape Girardeau, Missouri, Code of Ordinances >> PART II - CODE OF ORDINANCES >> Chapter 12 - FLOODPLAIN MANAGEMENT REGULATIONS >> ARTICLE V. FLOODPLAIN MANAGEMENT VARIANCE PROCEDURES >>

ARTICLE V. FLOODPLAIN MANAGEMENT VARIANCE PROCEDURES

Sec. 12-20. Establishment of appeal board.
Sec. 12-21. Responsibility of appeal board.
Sec. 12-22. Further appeals.
Sec. 12-23. Floodplain management variance criteria.
Sec. 12-24. Conditions for approving floodplain management variances.
Sec. 12-25. Conditions for approving variances for agricultural structures.
Sec. 12-26. Conditions for approving variances for accessory structures.

Sec. 12-20. Establishment of appeal board.

The board of adjustment as established by the City of Cape Girardeau shall hear and decide appeals and requests for variances from the floodplain management requirements of this chapter.

(Ord. No. 4254, art. 1, 8-15-11)

Sec. 12-21. Responsibility of appeal board.

Where an application for a floodplain development permit or request for a variance from the floodplain management regulations is denied by the city manager or his designee, the applicant may apply for such floodplain development permit or variance directly to the board of adjustment, as defined in article V, section 12-20.

The board of adjustment shall hear and decide appeals when it is alleged that there is an error in any requirement, decision, or determination made by the city manager or his designee in the enforcement or administration of this chapter.

(Ord. No. 4254, art. 1, 8-15-11)

Sec. 12-22. Further appeals.

Any person aggrieved by the decision of the board of adjustment or any taxpayer may appeal such decision to the circuit court of Cape Girardeau County as provided in RSMo § 89.110.

(Ord. No. 4254, art. 1, 8-15-11)

Sec. 12-23. Floodplain management variance criteria.

In passing upon such applications for variances, the board of adjustment shall consider all technical data and evaluations, all relevant factors, standards specified in other sections of this chapter, and the following criteria:

(1) The danger to life and property due to flood damage;
(2) The danger that materials may be swept onto other lands to the injury of others;
(3) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
(4) The importance of the services provided by the proposed facility to the city;
(5) The necessity to the facility of a waterfront location, where applicable;
(6) The availability of alternative locations, not subject to flood damage, for the proposed use;
(7) The compatibility of the proposed use with existing and anticipated development;
(8) The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
(9) The safety of access to the property in times of flood for ordinary and emergency vehicles;
(10) The expected heights, velocity, duration, rate of rise and sediment transport of the flood waters, if applicable, expected at the site; and
(11) The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems; streets; and bridges.

(Ord. No. 4254, art. 1, 8-15-11)

Sec. 12-24. Conditions for approving floodplain management variances.

(1) Generally, variances may be issued for new construction and substantial-improvements to be erected on a lot of one-half (½) acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing items (2) through (6) below have been fully considered. As the lot size increases beyond the one-half-acre, the technical justification required for issuing the variance increases.
(2) Variances may be issued for the reconstruction, rehabilitation, or restoration of structures listed on the National Register of Historic Places, the state inventory of historic places, or local inventory of historic places upon determination provided the proposed activity will not preclude the structure's continued historic designation.
(3) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
(4) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
(5) Variances shall only be issued upon (a) a showing of good and sufficient cause, (b) a determination that failure to grant the variance would result in exceptional hardship to the applicant, and (c) a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.
(6)

The city shall notify the applicant in writing over the signature of a city official that (1) the issuance of a variance to construct a structure below base flood level will result in increased premium rates for flood insurance up to amounts as high as twenty-five dollars ($25.00) for one hundred dollars ($100.00) of insurance coverage and (2) such construction below the base flood level increases risks to life and property. Such notification shall be maintained with the record of all variance actions as required by this chapter.

(Ord. No. 4254, art. 1, 8-15-11)

Sec. 12-25. Conditions for approving variances for agricultural structures.

Any variance granted for an agricultural structure shall be decided individually based on a case by case analysis of the building's unique circumstances. Variances granted shall meet the following conditions as well as those criteria and conditions set forth in article V, sections 12-23 and 12-24 of this chapter.

In order to minimize flood damages during the 100-year flood and the threat to public health and safety, the following conditions shall be included for any variance issued for agricultural structures that are constructed at-grade and wet-floodproofed.

(1) All agricultural structures considered for a variance from the floodplain management regulations of this chapter shall demonstrate that the varied structure is located in wide, expansive floodplain areas and no other alternate location outside of the special flood hazard area exists for the agricultural structure. Residential structures, such as farm houses, cannot be considered agricultural structures.

(2) Use of the varied structures must be limited to agricultural purposes in zone A only as identified on the city's flood insurance rate map (FIRM).

(3) For any new or substantially damaged agricultural structures, the exterior and interior building components and elements (i.e., foundation, wall framing, exterior and interior finishes, flooring, etc.) below the base flood elevation, must be built with flood-resistant materials in accordance with article IV, section 12-15(4)(b) of this chapter.

(4) The agricultural structures must be adequately anchored to prevent flotation, collapse, or lateral movement of the structures in accordance with article IV, section 12-15(4)(a) of this chapter. All of the building's structural components must be capable of resisting specific flood-related forces including hydrostatic, buoyancy, and hydrodynamic and debris impact forces.

(5) Any mechanical, electrical, or other utility equipment must be located above the base flood elevation or floodproofed so that they are contained within a watertight, floodproofed enclosure that is capable of resisting damage during flood conditions in accordance with article IV, section 12-15(4)(d) of this chapter.

(6) The agricultural structures must meet all National Flood Insurance Program (NFIP) opening requirements. The NFIP requires that enclosure or foundation walls, subject to the 100-year flood, contain openings that will permit the automatic entry and exit of floodwaters in accordance with article IV, section 12-16(1)(c) of this chapter.

(7) The agricultural structures must comply with the floodplain management floodway encroachment provisions of article IV, section 12-18(2) of this chapter. No variances may be issued for agricultural structures within any designated floodway, if any increase in flood levels would result during the 100-year flood.

(8) Major equipment, machinery, or other contents must be protected from any flood damage.

(9) No disaster relief assistance under any program administered by any federal agency shall be paid for any repair or restoration costs of the agricultural structures.

(10) The city shall notify the applicant in writing over the signature of a city official that (1) the issuance of a variance to construct a structure below base flood level will result in increased premium rates for flood insurance up to amounts as high as twenty-five dollars ($25.00) for one hundred dollars ($100.00) of insurance coverage and (2) such construction below the base flood level increases risks to life and property. Such notification shall be maintained with the record of all variance actions as required by this chapter.

(11) Wet-floodproofing construction techniques must be reviewed and approved by the floodplain administrator and a registered professional engineer or architect prior to the issuance of any floodplain development permit for construction.

(Ord. No. 4254, art. 1, 8-15-11)

Sec. 12-26. Conditions for approving variances for accessory structures.

Any variance granted for an accessory structure shall be decided individually based on a case by case analysis of the building's unique circumstances. Variances granted shall meet the following conditions as well as those criteria and conditions set forth in article V, sections 12-23 and 12-24 of this chapter.

In order to minimize flood damages during the 100-year flood and the threat to public health and safety, the following conditions shall be included for any variance issued for accessory structures that are constructed at-grade and wet-floodproofed.

(1) Use of the accessory structures must be solely for parking and limited storage purposes in zone A only as identified on the city's flood insurance rate map (FIRM).

(2) For any new or substantially damaged accessory structures, the exterior and interior building components and elements (i.e., foundation, wall framing, exterior and interior finishes, flooring, etc.) below the base flood elevation, must be built with flood-resistant materials in accordance with article IV, section 12-15(4)(b) of this chapter.

(3) The accessory structures must be adequately anchored to prevent flotation, collapse, or lateral movement of the structure in accordance with article IV, section 12-15(4)(a) of this chapter. All of the building's structural components must be capable of resisting specific flood-related forces including hydrostatic, buoyancy, and hydrodynamic and debris impact forces.

(4) Any mechanical, electrical, or other utility equipment must be located above the base flood elevation or floodproofed so that they are contained within a watertight, floodproofed enclosure that is capable of resisting damage during flood conditions in accordance with article IV, section 12-15(4)(d) of this chapter.

(5) The accessory structures must meet all National Flood Insurance Program (NFIP) opening requirements. The NFIP requires that enclosure or foundation walls, subject to the 100-year flood, contain openings that will permit the automatic entry and exit of floodwaters in accordance with article IV, section 12-16(1)(c) of this chapter.

(6) The accessory structures must comply with the floodplain management floodway encroachment provisions of article IV, section 12-18(2) of this chapter. No variances may be issued for accessory structures within any designated floodway, if any increase in flood levels would result during the 100-year flood.

(7) Equipment, machinery, or other contents must be protected from any flood damage.

(8) No disaster relief assistance under any program administered by any Federal agency shall be paid for any repair or restoration costs of the accessory structures.

(9) The city shall notify the applicant in writing over the signature of a city official that (1) the issuance of a variance to construct a structure below base flood level will result in increased premium rates for flood insurance up to amounts as high as twenty-five dollars ($25.00) for one hundred dollars ($100.00) of insurance coverage and (2) such construction below the base flood level increases risks to life and property. Such notification shall be maintained with the record of all variance actions as required by this chapter.

(10) Wet-floodproofing construction techniques must be reviewed and approved by the floodplain administrator and registered professional engineer or architect prior to the issuance of any floodplain development permit for construction.

(Ord. No. 4254, art. 1, 8-15-11)

Cape Girardeau, Missouri, Code of Ordinances >> PART II - CODE OF ORDINANCES >> Chapter 12 - FLOODPLAIN MANAGEMENT REGULATIONS >> ARTICLE VI. PENALTIES FOR VIOLATION >>

ARTICLE VI. PENALTIES FOR VIOLATION

Sec. 12-27. Penalties for violation.

Sec. 12-27. Penalties for violation.

Violation of the provisions of this chapter or failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with granting of variances) shall constitute a misdemeanor. Any person who violates this chapter or fails to comply with any of its requirements shall, upon conviction thereof, be fined not more than five hundred dollars ($500.00), and/or up to ninety (90) days in the city jail, and in addition, shall pay all costs and expenses involved in the case. Each day such violation continues shall be considered a separate offense. Nothing herein contained shall prevent the City of Cape Girardeau or other appropriate authority from taking such other lawful action as is necessary to prevent or remedy any violation.

(Ord. No. 4254, art. 1, 8-15-11)

Cape Girardeau, Missouri, Code of Ordinances >> PART II - CODE OF ORDINANCES >> Chapter 12 - FLOODPLAIN MANAGEMENT REGULATIONS >> ARTICLE VII. AMENDMENTS >>

ARTICLE VII. AMENDMENTS

Sec. 12-28. Amendments.

Sec. 12-28. Amendments.

The regulations, restrictions, and boundaries set forth in this chapter may from time to time be amended, supplemented, changed, or appealed to reflect any and all changes in the National Flood Disaster Protection Act of 1973, provided, however, that no such action may be taken until after a public hearing in relation thereto, at which parties of interest and citizens shall have an opportunity to be heard. Notice of the time and place of such hearing shall be published in a newspaper of general circulation in the City of Cape Girardeau. At least twenty (20) days shall elapse between the date of this publication and the public hearing. A copy of such amendments will be provided to the Region VII office of the Federal Emergency Management Agency (FEMA). The regulations of this chapter are in compliance with the National Flood Insurance Program (NFIP) regulations.

(Ord. No. 4254, art. 1, 8-15-11)

Sec. 12-29. Definitions.

Unless specifically defined below, words or phrases used in this chapter shall be interpreted so as to give them the same meaning they have in common usage and to give this chapter its most reasonable application.

100-year flood: See *Base flood.*

Accessory structure means the same as "appurtenant structure."

Actuarial rates: See *Risk premium rates.*

Administrator means the Federal Insurance Administrator.

Agency means the Federal Emergency Management Agency (FEMA).

Agricultural commodities means agricultural products and livestock.

Agricultural structure means any structure used exclusively in connection with the production, harvesting, storage, drying, or raising of agricultural commodities.

Appeal means a request for review of the floodplain administrator's interpretation of any provision of this chapter or a request for a variance.

Appurtenant structure means a structure that is on the same parcel of property as the principle structure to be insured and the use of which is incidental to the use of the principal structure.

Area of special flood hazard is the land in the floodplain within the city subject to a one (1) percent or greater chance of flooding in any given year.

Base flood means the flood having a one (1) percent chance of being equaled or exceeded in any given year.

Basement means any area of the structure having its floor subgrade (below ground level) on all sides.

Building: See *Structure.*

Chief executive officer means the city manager of the City of Cape Girardeau, the official of the community who is charged with the authority to implement and administer laws, ordinances, and regulations for the city.

Community means any state or area or political subdivision thereof, which has authority to adopt and enforce floodplain management regulations for the areas within its jurisdiction.

Development means any manmade change to improved or unimproved real estate, including, but not limited to, buildings or other structures, levees, levee systems, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.

Elevated building means for insurance purposes, a non-basement building which has its lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

Eligible community or *participating community* means a community for which the Administrator has authorized the sale of flood insurance under the National Flood Insurance Program (NFIP).

Existing construction means for the purposes of determining rates, structures for which the "start of construction" commenced before the effective date of the FIRM or before January 1, 1975, for FIRMs effective before that date. "Existing construction" may also be referred to as "existing structures."

Existing manufactured home park or subdivision means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by the city.

Expansion to an existing manufactured home park or subdivision means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

Flood or *flooding* means a general and temporary condition of partial or complete inundation of normally dry land areas from (1) the overflow of inland and/or (2) the unusual and rapid accumulation or runoff of surface waters from any source.

Flood boundary and floodway map (FBFM) means an official map of the city on which the administrator has delineated both special flood hazard areas and the designated regulatory floodway.

Flood elevation determination means a determination by the administrator of the water surface elevations of the base flood, that is, the flood level that has a one (1) percent or greater chance of occurrence in any given year.

Flood elevation study means an examination, evaluation and determination of flood hazards.

Flood fringe means the area outside the floodway encroachment lines, but still subject to inundation by the regulatory flood.

Flood hazard boundary map (FHBM) means an official map of the city, issued by the administrator, where the boundaries of the flood areas having special flood hazards have been designated as (unnumbered or numbered) A zones.

Flood insurance rate map (FIRM) means an official map of the city, on which the administrator has delineated both the special flood hazard areas and the risk premium zones applicable to the city.

Flood insurance study (FIS) means an examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations.

Floodplain or *floodprone area* means any land area susceptible to being inundated by water from any source (see *Flooding*).

Floodplain management means the operation of an overall program of corrective and preventive measures for reducing flood damage, including, but not limited to, emergency preparedness plans, flood control works, and floodplain management regulations.

Floodplain management regulations means zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as floodplain and grading ordinances) and other applications of police power. The term describes such state or local regulations, in any combination thereof, that provide standards for the purpose of flood damage prevention and reduction.

Floodproofing means any combination of structural and nonstructural additions, changes, or adjustments to structures that reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, or structures and their contents.

Floodway or *regulatory floodway* means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot.

Floodway encroachment lines means the lines marking the limits of floodways on federal, state and local floodplain maps.

Freeboard means a factor of safety usually expressed in feet above a flood level for purposes of floodplain management. "Freeboard" tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as bridge openings and the hydrological effect of urbanization of the watershed.

Functionally dependent use means a use that cannot perform its intended purpose unless it is located or carried out in close proximity to water. This term includes only docking facilities and

facilities that are necessary for the loading and unloading of cargo or passengers, but does not include long-term storage or related manufacturing facilities.

Highest adjacent grade means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

Historic structure means any structure that is:

(a) Listed individually in the National Register of Historic Places (a listing maintained by the Department of the Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

(b) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

(c) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or

(d) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either (1) by an approved state program as determined by the Secretary of the Interior or (2) directly by the Secretary of the Interior in states without approved programs.

Lowest floor means the lowest floor of the lowest enclosed area, including basement. An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access, or storage, in an area other than a basement area, is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable floodproofing design requirements of this chapter.

Manufactured home means a structure, transportable in one (1) or more sections, that is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term "manufactured home" does not include a "recreational vehicle."

Manufactured home park or subdivision means a parcel (or contiguous parcels) of land divided into two (2) or more manufactured home lots for rent or sale.

Map means the flood hazard boundary map (FHBM), flood insurance rate map (FIRM), or the flood boundary and floodway map (FBFM) for the city issued by the Federal Emergency Management Agency (FEMA).

Market value or *fair market value* means an estimate of what is fair, economic, just and equitable value under normal local market conditions.

Mean sea level means, for purposes of the National Flood Insurance Program (NFIP), the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on the city's flood insurance rate map (FIRM) are referenced.

New construction means, for the purposes of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, "new construction" means structures for which the "start of construction" commenced on or after the effective date of the floodplain management regulations adopted by the city and includes any subsequent improvements to such structures.

New manufactured home park or subdivision means a manufactured home park or subdivision for which the construction of facilities for servicing the lot on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of floodplain management regulations adopted by the city.

NFIP means the National Flood Insurance Program (NFIP).

Participating community also known as an "eligible community," means a community in which the administrator has authorized the sale of flood insurance.

Person includes any individual or group of individuals, corporation, partnership, association, or any other entity, including federal, state, and local governments and agencies.

Principally above ground means that at least fifty-one (51) percent of the actual cash value of the structure, less land value, is above ground.

Recreational vehicle means a vehicle which is:

(a) Built on a single chassis;
(b) Four hundred (400) square feet or less when measured at the largest horizontal projections;
(c) Designed to be self-propelled or permanently towable by a light-duty truck; and
(d) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

Remedy a violation means to bring the structure or other development into compliance with federal, state, or local floodplain management regulations; or, if this is not possible, to reduce the impacts of its noncompliance.

Repetitive loss means flood-related damages sustained by a structure on two (2) separate occasions during a ten-year period for which the cost of repairs at the time of each such flood event, equals or exceeds twenty-five (25) percent of the market value of the structure before the damage occurred.

Risk premium rates means those rates established by the administrator pursuant to individual community studies and investigations which are undertaken to provide flood insurance in accordance with Section 1307 of the National Flood Disaster Protection Act of 1973 and the accepted actuarial principles. "Risk premium rates" include provisions for operating costs and allowances.

Special flood hazard area: See *Area of special flood hazard.*

Special hazard area means an area having special flood hazards and shown on an FHBM, FIRM or FBFM as zones (unnumbered or numbered) A and AE.

Start of construction includes substantial improvements, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition placement, or other improvements were within one hundred eighty (180) days of the permit date. The "actual start" means either the first placement of permanent construction of a structure on a site, such as the pouring of slabs or footings, the installation of piles, the construction of columns, any work beyond the stage of excavation, or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading

and filling, the installation of streets and/or walkways, excavation for a basement, footings, piers, foundations, the erection of temporary forms, nor installation on the property of accessory structures, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the "actual start of construction" means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

State coordinating agency means that agency of the state government, or other office designated by the governor of the state or by state statute at the request of the administrator to assist in the implementation of the National Flood Insurance Program (NFIP) in that state.

Structure means, for floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home. "Structure", for insurance purposes, means a walled and roofed building, other than a gas or liquid storage tank, that is principally above ground and affixed to a permanent site, as well as a manufactured home on a permanent foundation. For the latter purpose, the term includes a building while in the course of construction, alteration or repair, but does not include building materials or supplies intended for use in such construction, alteration or repair, unless such materials or supplies are within an enclosed building on the premises.

Substantial damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed fifty (50) percent of the market value of the structure before the damage occurred. The term includes "repetitive loss buildings" (see definition). For the purposes of this definition, "repair" is considered to occur when the first repair or reconstruction of any wall, ceiling, floor, or other structural part of the building commences. The term does not apply to:

(a) Any project for improvement of a building required to comply with existing health, sanitary, or safety code specifications which have been identified by the code enforcement official and which are solely necessary to assure safe living conditions; or

(b) Any alteration of a "historic structure" provided that the alteration will not preclude the structure's continued designation as a "historic structure"; or

(c) Any improvement to a building.

Substantial improvement means any combination of reconstruction, alteration, or improvement to a building, taking place during a ten-year period, in which the cumulative percentage of improvement equals or exceeds fifty (50) percent of the current market value of the building. For the purposes of this definition, an improvement occurs when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the building. This term includes structures, which have incurred "repetitive loss" or "substantial damage", regardless of the actual repair work done. The term does not apply to:

(a) Any project for improvement of a building required to comply with existing health, sanitary, or safety code specifications which have been identified by the city manager or his designee and which are solely necessary to assure safe living conditions; or

(b) Any alteration of an "historic structure" provided that the alteration will not preclude the structure's continued designation as an "historic structure"; or

(c) Any building that has been damaged from any source or is categorized as repetitive loss.

Substantially improved existing manufactured home parks or subdivisions is where the repair, reconstruction, rehabilitation or improvement of the streets, utilities and pads equals or exceeds fifty (50) percent of the value of the streets, utilities and pads before the repair, reconstruction or improvement commenced.

Variance means a grant of relief by the city from the terms of a floodplain management regulation. Flood insurance requirements remain in place for any varied use or structure and cannot be varied by the city.

Violation means the failure of a structure or other development to be fully compliant with the city's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required by this chapter is presumed to be in violation until such time as that documentation is provided.

Water surface elevation means the height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929 (or other datum where specified) of floods of various magnitudes and frequencies in the floodplain.

(Ord. No. 4254, art. 1, 8-15-11)

Chapter 22 Solid Waste & Weeds

Cape Girardeau, Missouri, Code of Ordinances >> PART II - CODE OF ORDINANCES >> Chapter 22 SOLID WASTE AND WEEDS >>

Chapter 22 SOLID WASTE AND WEEDS [1]

ARTICLE I. - IN GENERAL
ARTICLE II. - STORAGE, COLLECTION, TRANSPORTATION, PROCESSING AND DISPOSAL OF SOLID WASTE
ARTICLE III. - LITTER
ARTICLE IV. - WEEDS

FOOTNOTE(S):

— (1) —

Cross reference— *Administration, ch. 2; fire prevention and protection, ch. 11; health and sanitation, ch. 13; licenses and business regulations, ch. 15; water and sewers, ch. 29; burning, air pollution regulations, § 3-9 et seq.: removal of dead animals, § 6-2; refuse handling in travel trailer camps and mobile home parks, § 27-37; insect and rodent control in travel trailer camps and mobile home parks, § 27-38.* *(Back)*

State Law reference— *Solid waste, RSMo, § 260.200 et seq.* *(Back)*

Cape Girardeau, Missouri, Code of Ordinances >> PART II - CODE OF ORDINANCES >> Chapter 22 - SOLID WASTE AND WEEDS >> ARTICLE I. IN GENERAL >>

ARTICLE I. IN GENERAL

Secs. 22-1—22-25. Reserved.

Secs. 22-1—22-25. Reserved.

Cape Girardeau, Missouri, Code of Ordinances >> PART II - CODE OF ORDINANCES >> Chapter 22 - SOLID WASTE AND WEEDS >> ARTICLE II. STORAGE, COLLECTION, TRANSPORTATION, PROCESSING AND DISPOSAL OF SOLID WASTE >>

ARTICLE II. STORAGE, COLLECTION, TRANSPORTATION, PROCESSING AND DISPOSAL OF SOLID WASTE

Sec. 22-26. Definitions.
Sec. 22-27. City to provide containers.
Sec. 22-28. Commercial establishments to provide containers.
Sec. 22-29. Reserved.
Sec. 22-30. Tree limbs; how collected.
Sec. 22-31. Demolition and construction wastes not to be collected.
Sec. 22-32. Reserved.
Sec. 22-33. Collection of solid waste; residential and commercial.
Sec. 22-34. Bulky rubbish collected; how.
Sec. 22-35. Waste containers; where placed.

Sec. 22-36. Collection frequency.
Sec. 22-37. Collection vehicles; condition.
Sec. 22-38. Disposal of rock and earth.
Sec. 22-39. Disposal of waste; fee.
Sec. 22-40. Permit—Required.
Sec. 22-41. Same—Liability insurance necessary.
Sec. 22-42. Same—Information required.
Sec. 22-43. Same—When issued.
Sec. 22-44. Inspection.
Sec. 22-45. Rules and regulations.
Sec. 22-46. Prohibited practices.
Sec. 22-47. Residential solid waste collection fees.
Sec. 22-48. Billing; payment; delinquency; penalty.
Sec. 22-49. Termination of solid waste collection service.
Sec. 22-50. Failure to pay fees; penalty.
Sec. 22-51. Penalties.
Secs. 22-52—22-70. Reserved.

Sec. 22-26. Definitions.

For the purposes of this article the following terms shall be deemed to have the meaning indicated below:

Approved incinerator means an incinerator which complies with all current regulations of the Missouri Air Conservation Commission and the requirements of the city.

Bulky rubbish means nonputrescible solid wastes consisting of combustible and/or noncombustible waste materials from dwelling units, commercial, industrial, institutional or agricultural establishments which are either too large or too heavy to be safely and conveniently loaded in solid waste collection vehicles by solid waste collectors, with the equipment available therefor.

City staff means the public works department of the city.

Collection means the removal and transportation of solid waste from its place of storage to its place of processing or disposal.

Commercial establishment means any commercial, industrial, institutional or agricultural establishment, and any multiple housing facility or multiple housing complex with more than three (3) dwelling units.

Demolition and construction waste means waste materials from the construction or destruction of residential, industrial or commercial structures.

Disposal facility means solid waste transfer station, landfill disposal site or any other approved site for the handling and disposition of solid waste.

Disposable solid waste containers means disposable plastic sacks with a capacity of twenty (20) to thirty-two (32) gallons specifically designed for storage of solid waste.

Dwelling unit means any room or group of rooms located within a structure and forming a single habitable unit with facilities which are used, or are intended to be used, for living, sleeping, cooking and eating.

Garbage means putrescible animal or vegetable wastes resulting from the handling, preparation, cooking, serving or consumption of food.

Hazardous wastes means and includes, but is not limited to, pathological wastes, explosive wastes, pesticides, pesticide containers, toxic or radioactive materials.

Multiple housing complex means a group of multiple housing facilities under the same ownership and control, located in the same and contiguous geographical area.

Multiple housing facility means a housing facility containing more than one (1) dwelling unit under one (1) roof.

Occupant means any person who, alone or jointly or severally with others shall be in actual possession of any dwelling unit or of any other improved real property, either as owner or as tenant.

Operating fee means costs incurred by the city for equipment and personnel to provide refuse service.

Person means any individual, partnership, copartnership, firm, company, corporation, association, joint stock company, trust, estate, political subdivision or organization of any kind, or their legal representatives, agents or assigns.

Processing means incinerating, composting, baling, shredding, salvaging, compacting and other processes whereby solid waste characteristics are modified or solid waste quantity is reduced.

Recyclables are items collected by recycling crews which have been deemed acceptable for recycling by the city staff.

Recycling center means a facility for drop off and processing of recyclable products.

Recycling containers are containers that provide for access, separation, and content identification for the collection of recyclable products.

Refuse means solid waste.

Solid waste means unwanted or discarded waste materials in a solid or semisolid state, including but not limited to garbage, ashes, street refuse, rubbish, dead animals, animal and agricultural wastes, yard wastes, discarded appliances, special wastes, industrial wastes, and demolition and construction wastes.

(1) *Commercial solid waste.* Solid waste resulting from the operation of any commercial, industrial, institutional or agricultural establishment, and any multiple housing facilities with more than three (3) dwelling units, or multiple housing complexes with more than three (3) dwelling units.

(2) *Residential solid waste.* Solid waste resulting from the maintenance and operation of dwelling units, excluding multiple housing facilities with more than three (3) dwelling units, and multiple housing complexes with more than three (3) dwelling units.

Solid waste containers means receptacles used by any person to store solid wastes during the interval between solid waste collections.

Solid waste disposal means the process of discarding or getting rid of unwanted material. In particular, the final disposition of solid waste by man.

Solid waste management means the entire solid waste system of storage, collection, transportation, processing and disposal.

Storage means keeping, maintaining or storing solid waste from the time of its production until the time of its collection.

Tipping fee means the per ton cost of operation of the transfer station and cost for transportation and disposal.

Yard waste includes all grass clippings, leaves, yard and garden vegetation, tree limbs, and brush.

(Code 1967, § 13-11; Ord. No. 666, § 1, 2-15-89; Ord. No. 874, arts. 1, 2, 6-18-90; Ord. No. 890, arts. 1, 2, 7-16-90; Ord. No. 1194, §§ 1, 2, 6-15-92)

Sec. 22-27. City to provide containers.

The city shall provide each residential solid waste customer with one (1) sixty-four (64) gallon container for the storage of all solid waste except bulky rubbish, demolition and construction waste, and one (1) ninety-six (96) gallon cart for the storage of all accepted recycling materials as determined by the public works director, except glass and yard waste or other materials as may be determined by the public works director. Each occupant shall place all solid waste to be collected in the city-provided sixty-four (64) gallon container and all recyclable materials in the city-provided ninety-six (96) gallon container. Each occupant shall not damage, abuse or misuse any container provided by the city and shall keep the area surrounding such container in a clean, neat and sanitary condition. The city may provide each residential solid waste customer with households consisting of one (1) or two (2) persons with options for sizes smaller than the standard sizes otherwise established in this section.

(Code 1967, § 13-12; Ord. No. 4110, art. 1, 3-15-10)

Sec. 22-28. Commercial establishments to provide containers.

Every commercial establishment shall provide sufficient and adequate containers, to be approved by the city staff, for the storage of all solid waste except bulky rubbish and demolition and construction waste to serve such commercial establishment.

(Code 1967, § 13-13; Ord. No. 4110, art. 2, 3-15-10)

Sec. 22-29. Reserved.

Editor's note—

Article 3 of Ord. No. 4110, adopted March 15, 2010, repealed § 22-29 which pertained to residential container specifications, and derived from § 13-14 of the 1967 Code.

Sec. 22-30. Tree limbs; how collected.

All tree limbs and brush shall be securely tied in bundles not larger than forty-eight (48) inches long and eighteen (18) inches in diameter. The weight of any individual bundle shall not exceed seventy-five (75) pounds.

(Code 1967, § 13-15; Ord. No. 1194, § 3, 6-15-92)

Sec. 22-31. Demolition and construction wastes not to be collected.

Demolition and construction wastes shall be collected only by contractual arrangement with the city or by other persons authorized by the city to collect such demolition and construction wastes pursuant to this chapter and must not be disposed of in regularly scheduled residential collections.

(Ord. No. 666, § 2, 2-15-89; Ord. No. 4110, art. 4, 3-15-10)

Sec. 22-32. Reserved.

Editor's note—

Article 5 of Ord. No. 4110, adopted March 15, 2010, repealed § 22-32 which pertained to when containers collected, and derived from § 13-17 of the 1967 Code.

Sec. 22-33. Collection of solid waste; residential and commercial.

(a) Every owner or occupant of a residential dwelling unit within the city limits shall receive solid waste collection service and tender payment therefor in accordance with the fees established in this article. The owners and occupants of individual premises receiving solid waste collection service shall be jointly and severally liable to pay such fees. The city shall have the power to file civil suit against owners, occupants or both to recover all sums due and, in addition thereto, reasonable attorney's fees.

(b) It shall be the duty of each commercial establishment to provide for collection of all solid waste produced upon such premises, and to dispose of such waste in a lawful manner.

(Code 1967, § 13-18; Ord. No. 4110, art. 6, 3-15-10)

Sec. 22-34. Bulky rubbish collected; how.

All solid waste from premises to which collection services are provided by the city shall be collected, except as elsewhere provided in this chapter, and except for bulky rubbish, provided, however, that bulky rubbish may be collected according to regulations and charges to be made and promulgated by the city staff as hereinafter provided. Bulky rubbish shall not be collected upon regular collection days, but shall be collected upon request to the city staff and according to procedures established by the city staff. Nothing in this chapter shall require the city to collect any bulky rubbish that the city staff determines to be harmful to its collection equipment, or that cannot be adequately disposed of by the disposal methods utilized by the city.

(Code 1967, § 13-19; Ord. No. 1032, art. 1, 6-17-91)

Sec. 22-35. Waste containers; where placed.

(a) All residential waste and recyclable containers shall be placed within three (3) feet of the curb or edge of roadway, or alley, where ordered by the city staff, for collection, except as elsewhere provided for in this chapter. Such containers shall be placed at the curb, or edge

of roadway, or alley, on or twelve (12) hours prior to the day of collection, and removed on the same day within a reasonable time. Such containers shall be used in such a way as to prevent blowing or spreading of refuse in any way and be stored on private property, in such a manner that such containers shall not become an eyesore or public nuisance.

(b) All commercial waste containers shall be placed upon private property, accessible for collection and in a well-drained area.

(c) The contents of residential waste containers shall be kept in such condition that they can, at all times, be readily and fully removable by the city.

(Code 1967, § 13-20; Ord. No. 1032, art. 2, 6-17-91; Ord. No. 1194, § 4, 6-15-92; Ord. No. 4110, art. 7, 3-15-10)

Sec. 22-36. Collection frequency.

All residential solid wastes shall be collected at least twice weekly, once for regular trash collection and once for collection [of] recyclable materials, on the days designated and in the manner required by the public works director to meet the objectives of the city's solid waste management plan.

(Code 1967, § 13-21; Ord. No. 1194, § 5, 6-15-92)

Sec. 22-37. Collection vehicles; condition.

All collection vehicles shall be maintained in a safe, clean and sanitary condition, and shall be so constructed, maintained and operated as to prevent spillage of solid waste therefrom. All vehicles used for collection of solid waste shall be constructed with watertight bodies and with covers which shall be an integral part of the vehicle or shall be a separate cover of suitable material with fasteners designed to secure all sides of the cover to the vehicle and shall be secured whenever the vehicle is transporting solid waste, or, as an alternate, the entire bodies thereof shall be enclosed, with only loading hoppers exposed. No solid waste shall be transported in the loading hoppers. Before any permit for the collection of solid wastes shall be issued, the city staff shall inspect and approve applicant's equipment according to this section. If the applicant's equipment shall not meet these requirements, the permit shall not be issued.

(Code 1967, § 13-22; Ord. No. 666, § 3, 2-15-89)

Sec. 22-38. Disposal of rock and earth.

No permits of any kind shall be required for the removal, hauling or disposal of earth and rock material from grading or excavation activities; however, all such material shall be conveyed in vehicles so constructed and maintained that none of the material being transported shall spill upon the public rights-of-way. Transportation and disposal of demolition and construction wastes shall be in accordance with later sections.

(Code 1967, § 13-23)

Sec. 22-39. Disposal of waste; fee.

(a) Solid waste shall be disposed of at a processing facility or disposal area approved by the city and shall comply with the requirement of the state department of natural resources. The city may classify certain wastes as hazardous and shall order disposal in a manner which will meet all local, state and federal regulations.

(b)

Haulers who dispose of less than twenty (20) tons of solid waste per week at the city disposal facility shall pay a rate of fifty-two dollars and twenty-five cents ($52.25) per ton plus fuel surcharge, if applicable. The applicable fee shall be increased by twenty-five dollars ($25.00) for each load that is not properly covered or secured in accordance with state and local law. Private haulers who regularly use the disposal facility and who regularly dispose of more than twenty (20) tons of solid waste per week at the city disposal facility shall have a rate established by contract based on the operating costs. The charge per ton will be increased when the previous week's average per gallon diesel fuel price exceeds two dollars and seventy-five cents ($2.75). The charge will be increased by one hundred eighty (180) percent of the difference between the previous week's average per gallon diesel fuel price and two dollars and seventy-five cents ($2.75). All surcharges will be rounded up to the next cent. Average per gallon diesel fuel costs will be the U.S. average as published by the U.S. Energy Information Administration.

(Code 1967, § 13-24; Ord. No. 666, § 4, 2-15-89; Ord. No. 1032, art. 3, 6-17-91; Ord. No. 1194, § 6, 6-15-92; Ord. No. 1354, art. 3, 6-7-93; Ord. No. 1559, art. 1, 6-20-94; Ord. No. 2176, art. 1, 6-16-97; Ord. No. 2792, art. 1, 9-25-00; Ord. No. 3498, art. 1, 6-20-05; Ord. No. 3773, art. 1, 12-18-06; Ord. No. 3823, art. 1, 6-18-07; Ord. No. 3873, art. 1, 12-3-07; Ord. No. 3925, art. 1, 6-16-08; Ord. No. 4040, art. 1, 6-15-09; Ord. No. 4132, art. 1, 6-21-10; Ord. No. 4243, art. 1, 6-20-11; Ord. No. 4323, art. 1, 6-18-12)

Sec. 22-40. Permit—Required.

No person shall engage in the business of collecting, transporting, processing or disposing of solid waste within the city limits of the city, without first obtaining an annual permit therefor from the city; provided, however, that this provision shall not be deemed to apply to employees of the holder of any such permit. Collection vehicles of persons holding permits shall have their names, addresses, and permit numbers painted on both sides of such vehicles in letters of at least three (3) inches, in a contrasting color to that of the vehicle.

(Code 1967, § 13-25)

Sec. 22-41. Same—Liability insurance necessary.

No permit required by section 22-40 shall be issued until and unless the applicant therefor, in addition to other requirements set forth, shall file and maintain with the city staff a certificate of insurance covering all operations of such applicant pertaining to such business and all vehicles to be operated in the conduct thereof, in the amount of not less than one hundred thousand dollars ($100,000.00) for each person injured or killed, and in the amount of not less than eight hundred thousand dollars ($800,000.00) in the event of injury or death of two (2) or more persons in any single accident, and in the amount of not less than one hundred thousand dollars ($100,000.00) for damage to property. Should such policy be cancelled, the city staff shall be notified of such cancellation by the insurance carrier in writing not less than ten (10) days prior to the effective date of such cancellation, and provisions to that effect shall be incorporated in any such policy, which shall also place upon the company writing such policy the duty to give such notice.

(Ord. No. 666, § 5, 2-15-89)

Sec. 22-42. Same—Information required.

Each applicant for any permit required by section 22-40 shall state in his application therefor:

(1) The nature of the permit desired, as to collect, transport, process or dispose of solid waste or any combination thereof;

(2) The characteristics of solid waste to be collected, transported, processed or disposed;
(3) The number of solid waste vehicles to be operated thereunder;
(4) The precise location of solid waste processing or disposal facilities to be used;
(5) Boundaries of the collection area; and
(6) Such other information as required by the city staff.

(Code 1967, § 13-27)

Sec. 22-43. Same—When issued.

(a) If the application for a license required by section 22-40 shows that the applicant will collect, transport, process or dispose of solid wastes without hazard to the public health or damage to the environment and in conformity with the laws of the state and this article, the city staff shall issue the permit authorized by this article. The permit shall be issued for a period of one (1) year, and each applicant shall pay therefor a fee of ten dollars ($10.00) for each collection vehicle to be used. If in the opinion of the city staff, modifications can be made to the application regarding service, equipment or mode of operation, so as to bring the application within the intent of this article; the city may notify the applicant in writing setting forth the modification to be made and the time in which it shall be done.

(b) If the applicant fails to meet all conditions, he shall be notified in writing that the permit applied for was denied. The annual permit may be renewed upon payment of fees, except where modifications in the applicant's business have occurred. If modifications have occurred then the applicant must reapply.

(Code 1967, § 13-28; Ord. No. 666, § 6, 2-15-89; Ord. No. 4110, art. 8, 3-15-10)

Sec. 22-44. Inspection.

In order to insure compliance with the laws of this state, this article and the rules and regulations authorized herein, the city staff is authorized to inspect all phases of solid waste management within the city. Violations shall be reported to the city manager and may be grounds for the suspension or revocation of the permit, depending upon the circumstances involved. Nothing in this section shall be construed to in any way limit, amend or alter any provisions in the public nuisance ordinances of the city.

(Code 1967, § 13-29)

Sec. 22-45. Rules and regulations.

(a) The city staff shall make, amend, revoke and enforce reasonable and necessary rules and regulations governing, but not limited to:
(1) Preparation, drainage and wrapping of garbage deposited in solid waste containers.
(2) Specifications for solid waste containers, including the type, composition, equipment, size and shape thereof.
(3) Identification of solid waste containers and of the covers thereof, and of equipment thereto appertaining, if any.
(4) Weight limitations on the combined weight of solid waste containers and the contents thereof, and weight and size limitations on bundles of solid waste too large for solid waste containers.
(5) Storage of solid waste in solid waste containers.
(6) Sanitation, maintenance and replacement of solid waste containers.

(7) Schedules of and routes for collection of solid waste.
(8) Collection points of solid waste containers.
(9) Collection and disposal of solid waste.
(10) Processing facilities and fees for the use thereof.
(11) Disposal facilities and fees for the use thereof.
(12) Records of quantity and type of wastes received at processing and/or disposal facilities.
(13) Handling of special wastes such as toxic wastes, sludges, ashes, agriculture, construction, bulky items, tires, automobiles, oils, greases, etc.

(b) The city collector is hereby authorized to make and promulgate reasonable and necessary rules and regulations for the billing and collection of solid waste collection and/or disposal service charges, as hereinafter provided for.

(Code 1967, § 13-30)

Sec. 22-46. Prohibited practices.

It shall be unlawful for any person to:

(1) Deposit solid waste in any solid waste container other than his own, without the written consent of the owner of such container and/or with the intent of avoiding payment of the service charge hereinafter provided for solid waste collection and disposal.
(2) Interference in any manner with solid waste collection equipment, or with solid waste collectors in the lawful performance of their duties as such, whether such equipment or collectors shall be those of the city, or those of a solid waste collection agency operating under contract with the city.
(3) Burn solid waste unless an approved incinerator is provided or unless a variance has been obtained from the appropriate air pollution control agency.
(4) Dispose of solid waste at any facility or location which is not approved by the city and the state department of health.
(5) Engage in the business of collecting, transporting, processing or disposing of solid waste within the city limits of the city without a permit from the city, or operate under any expired permit, or operate after a permit has been suspended or revoked.

(Code 1967, § 13-31)

Sec. 22-47. Residential solid waste collection fees.

(a) *Basic monthly charge.* The basic monthly solid waste collection fee for residential customers shall be seventeen dollars and fifty cents ($17.50) per month, per dwelling unit. Residential back door service may be provided on a contract basis subject to fees based on the additional operating costs associated with providing such service. Such basic charge shall include the following services:
(1) Collection of all waste or recycling in the city-provided containers.
(2) Bulk waste collection program.
(3) Fall leaf collection program.

(b) *Additional container.* Customers who receive a second sixty-four (64) gallon container for solid waste storage and collection shall pay an additional seventeen dollars and fifty cents

($17.50) per month, per dwelling unit plus the basic monthly charge established in this section.

(c) *Fuel surcharge.* The monthly solid waste collection fee for residential customers shall be increased when the previous month's average per gallon diesel fuel price exceeds two dollars and seventy-five cents ($2.75). The charge will be increased by forty-four (44) percent of the difference between the previous month's average per gallon diesel fuel price and two dollars and seventy-five cents ($2.75). All surcharges will be rounded up to the next cent. Average per gallon diesel fuel costs will be the U.S. average as published by the U.S. Energy Information Administration.

(Ord. No. 666, § 7, 2-15-89; Ord. No. 874, art. 5, 6-18-90; Ord. No. 1194, § 7, 6-15-92; Ord. No. 1559, art. 2, 6-20-94; Ord. No. 1962, § 1, 6-3-96; Ord. No. 2176, art. 2, 6-16-97; Ord. No. 2372, art. 1, 6-15-98; Ord. No. 2539, art. 1, 6-21-99; Ord. No. 2744, art. 1, 6-19-00; Ord. No. 2898, art. 1, 6-18-01; Ord. No. 3183, art. 1, 6-16-03; Ord. No. 3501, art. 1, 6-20-05; Ord. No. 3674, art. 1, 6-19-06; Ord. No. 3823, art. 2, 6-18-07; Ord. No. 3873, art. 2, 12-3-07; Ord. No. 3925, art. 2, 6-16-08; Ord. No. 4040, art. 2, 6-15-09; Ord. No. 4110, art. 9, 3-15-10; Ord. No. 4243, art. 2, 6-20-11; Ord. No. 4323, art. 2, 6-18-12)

Sec. 22-48. Billing; payment; delinquency; penalty.

(a) The city finance director, or such other officer or representative of the city as may be designated from time to time, shall be responsible for calculating the amount of and rendering bills for the fees established in this article.

(b) All service bills shall be due and payable in full fourteen (14) days from the date the bill was rendered and shall be considered delinquent after twenty-one (21) days. If the last day for remittance falls upon a weekend or holiday, or any other day when the offices of the department, regularly used for the payment of customer bills, are not open to the general public, the final payment date shall be extended through to the close of the next business day. The date of payment for remittance through the mail shall be the date on which the department receives the remittance. All accounts which become delinquent shall be charged a ten (10) percent penalty.

(Code 1967, § 13-34; Ord. No. 1194, §§ 8, 9, 6-15-92; Ord. No. 1614, art. 1, 9-19-94)

Sec. 22-49. Termination of solid waste collection service.

In the event an account declared delinquent has not been paid in full within one (1) month of the initial due date, the city may terminate solid waste collection service to such premises.

(Code 1967, § 13-35)

Sec. 22-50. Failure to pay fees; penalty.

It shall be unlawful for any person properly charged for fees established in this article to fail to pay such fees and such offense shall be punished by a fine not exceeding five hundred dollars ($500.00).

(Code 1967, § 13-36)

Sec. 22-51. Penalties.

Except as otherwise provided in this article, any person violating any of the provisions of this article, or any lawful rules or regulations promulgated pursuant thereto, upon conviction, shall be

punished by a fine of not less than five dollars ($5.00) nor more than five hundred dollars ($500.00); provided, that each day's violation thereof shall be a separate offense for the purpose hereof.

(Code 1967, § 13-37)

Secs. 22-52—22-70. Reserved.

ARTICLE III. LITTER [2]

Sec. 22-71. Title.
Sec. 22-72. Penalties for violation.
Sec. 22-73. Definitions.
Sec. 22-74. Litter in public places.
Sec. 22-75. Placement of litter in receptacles so as to prevent scattering.
Sec. 22-76. Sweeping litter into gutters prohibited.
Sec. 22-77. Litter thrown by persons in vehicles.
Sec. 22-78. Truck loads causing litter.
Sec. 22-79. Litter in parks.
Sec. 22-80. Litter in lakes and fountains.
Sec. 22-81. Throwing or distributing handbills in public places.
Sec. 22-82. Reserved.
Sec. 22-83. Depositing handbill on uninhabited or vacant premises.
Sec. 22-84. Prohibiting distributing of handbills where property posted.
Sec. 22-85. Distributing handbills at private premises.
Sec. 22-86. Dropping litter from aircraft.
Sec. 22-87. Posting notices prohibited.
Sec. 22-88. Litter on occupied private property.
Sec. 22-89. Owner of business to maintain premises free of litter.
Sec. 22-90. Throwing, depositing rock, metal, glass, wood, etc., upon private premises of another or upon public property; penalty.
Sec. 22-91. Owner to maintain premises free of litter.
Sec. 22-92. Control of runoff water; penalty.
Sec. 22-93. Removal of mud, dirt, etc., from public streets; penalty.
Secs. 22-94—22-110. Reserved.

Sec. 22-71. Title.

This article shall be known and may be cited as the Cape Girardeau Anti-Litter Ordinance.

(Code 1967, § 16A-1)

Sec. 22-72. Penalties for violation.

Any person violating any of the provisions of this article shall be deemed guilty of a misdemeanor and upon conviction thereof shall be fined an amount not exceeding five hundred

dollars ($500.00) or be imprisoned in the city jail for a period not exceeding three (3) months or by both such fine and imprisonment. Each day such violation is committed or permitted to continue shall constitute a separate offense and shall be punishable as such hereunder.

(Code 1967, § 16A-2)

Sec. 22-73. Definitions.

For the purpose of this article, the following terms, phrases, words, and their derivations shall have the meaning given herein:

Accumulated litter means litter of an amount and degree so as to constitute a nuisance.

Aircraft means any contrivance now known or hereafter invented, used or designated for navigation or for flight in the air. The word "aircraft" shall include helicopters and lighter-than-air dirigibles and balloons.

Garbage means putrescible animal and vegetable wastes resulting from the handling, preparation and cooking and consumption of food.

Handbill means any printed or written matter, any sample, or device, dodger, circular, leaflet, pamphlet, newspaper, magazine, paper, booklet, or any other printed or otherwise reproduced original or copies of any matter or literature.

Litter means "garbage," "refuse" and "rubbish" and all other waste material which, if thrown or deposited as herein prohibited, tends to create a danger to public health, safety and welfare.

Newspaper means a publication of general circulation printed, distributed and subscribed to by the recipient which contains either news, opinions, advertisements or other items of general interest, and in addition thereto, shall mean and include any periodical or current magazine regularly published with not less than four (4) issues per year, and sold to the public.

Park means a park, reservation, playground, beach, recreation center or any other public area in the city, owned and/or used by the city and developed to active or passive recreation.

Private premises means any dwelling, house, building, or other structure, designed or used either wholly or in part for private purposes, whether inhabited or temporarily or continuously uninhabited or vacant, and shall include any yard, grounds, walk, driveway, porch, steps, vestibule or mailbox belonging or appurtenant to such dwelling, house, building or other structure.

Public place means any and all streets, sidewalks, boulevards, alleys or other public ways and any and all public parks, squares, spaces, grounds, and buildings.

Receptacle means a litter storage and collection container constructed and maintained so as to prevent litter from escaping therefrom and which is offered for the purpose of receiving litter.

Refuse means all putrescible and nonputrescible solid wastes including garbage, rubbish, ashes, street cleanings, dead animals, abandoned automobiles and solid market and industrial wastes.

Rubbish means nonputrescible solid wastes consisting of both combustible and noncombustible wastes, such as paper, wrappings, cigarettes, cardboard, tin cans, yard clippings, leaves, wood, glass, bedding, crockery and similar materials.

Vehicle means every device in, upon, or by which any person or property is or may be transported or drawn upon a highway including devices used exclusively upon stationary rails or tracks.

(Code 1967, § 16A-3)

Sec. 22-74. Litter in public places.

No person shall throw or deposit litter in or upon any street, sidewalk, or other public place within the city except in receptacles, or in an official city dump.

(Code 1967, § 16A-4)

Sec. 22-75. Placement of litter in receptacles so as to prevent scattering.

Persons placing litter in receptacles shall do so in such a manner as to prevent it from being carried or deposited by the elements upon any street, sidewalk or other public place or upon private property.

(Code 1967, § 16A-5)

Sec. 22-76. Sweeping litter into gutters prohibited.

No person shall sweep into or deposit in any gutter, street, or other public place within the city, the accumulation of litter from any building or lot or from any public or private sidewalk or driveway.

(Code 1967, § 16A-6)

Sec. 22-77. Litter thrown by persons in vehicles.

No person, while a driver or passenger in a vehicle, shall throw or deposit litter upon any street or other public place within the city or upon private property.

(Code 1967, § 16A-7)
Cross reference— *Traffic, ch. 26.*

Sec. 22-78. Truck loads causing litter.

(a) No person shall drive or move any truck or other vehicle within the city unless such vehicle is so constructed or loaded so as to prevent any load contents, or litter from being blown or deposited upon any street, alley or other public place or upon private property in an amount so as to constitute a nuisance unless the person removes such load contents or litter from said street, alley, public or private place at the completion of the working day, or at least once each calendar working day.

(b) No person shall drive or move any vehicle or truck within the city, the wheels, or tires of which carry onto or deposit in any street, alley or other public place, mud, dirt, sticky substances, litter, or foreign matter of any kind in an amount so as to constitute a nuisance unless the person removes the mud, dirt, sticky substances, litter, or foreign matter from said street, alley or public place at the completion of the working day.

(c) Any person who creates a nuisance on account of violation of section (a) or (b) above must abate that nuisance immediately and may not wait until the completion of the working day

whenever a duly commissioned police officer of the city determines that such nuisance is an immediate hazard for persons who travel upon said street, alley or other public place or said private property. If a police officer makes a determination that the nuisance constitutes an immediate hazard, he may order the responsible person to begin immediate clean-up and abatement of the nuisance and should such person fail or refuse to comply with the police officer's order, the city shall have the right and authority to proceed to correct and remove said immediate hazard and charge the expense thereof to the person who is in violation of section (a) or (b) above.

(Code 1967, § 16A-8; Ord. No. 1222, art. 1, 8-17-92)

Sec. 22-79. Litter in parks.

No person shall throw or deposit litter in any park within the city except in receptacles and in such a manner that the litter will be prevented from being carried or deposited by the elements upon any part of the park or upon any street or other public place or upon private property. Where receptacles are not provided, all such litter shall be carried away from the park by the person responsible for its presence and properly disposed of elsewhere as provided herein.

(Code 1967, § 16A-9)

Cross reference— *Parks and recreation, ch. 18.*

Sec. 22-80. Litter in lakes and fountains.

No person shall throw or deposit litter in any fountain, pond, lake, stream, bay or other body of water in a park or elsewhere within the city.

(Code 1967, § 16A-10)

Sec. 22-81. Throwing or distributing handbills in public places.

No person shall throw or deposit any handbill in or upon any sidewalk, street or other public place within the city; provided, however, that it shall not be unlawful on any sidewalk, street or other public place within the city for a person to hand out or distribute a handbill to any person willing to accept it.

(Code 1967, § 16A-11)

Cross reference— *Licenses and business regulations, ch. 15.*

Sec. 22-82. Reserved.

Editor's note—

Article 1 of Ord. No. 4389, adopted Nov. 5, 2012, repealed § 22-82, placing handbills on or in vehicles, which derived from § 16A-12 of the 1967 Code.

Sec. 22-83. Depositing handbill on uninhabited or vacant premises.

No person shall throw or deposit any handbill in or upon any private premises which are temporarily or continuously uninhabited or vacant.

(Code 1967, § 16A-13)

Sec. 22-84. Prohibiting distributing of handbills where property posted.

No person shall throw, deposit, or distribute any handbill upon any private premises if requested by anyone thereon not to do so, or if there is placed on the premises in a conspicuous position near the entrance thereof, a sign bearing the words: "No Trespassing," "No Peddlers Or Agents," "No Advertisement," or any similar notice advising that the occupants of the premises do not desire to be molested or have their right of privacy disturbed, or to have any handbills left upon such premises.

(Code 1967, § 16A-14)

Sec. 22-85. Distributing handbills at private premises.

(a) No person shall throw, deposit, leave or distribute any handbill in or upon private premises except by handing or transmitting such handbill directly to the owner, occupant, or other person then present in or upon such private premises; provided, however, that in case of private premises which are not posted, as provided in section 22-84, such person may place or deposit any such handbill in or upon such private premises, if such handbill is so placed or deposited in a receptacle specifically designed to receive the same; this proviso shall not be interpreted to authorize the placing of handbills under or behind screens or entrance doors, on porches, in yards, or in mailboxes when so prohibited by federal postal law or regulations.

(b) The provisions of this section shall not apply to the distribution of mail by the United States, nor to newspapers (as defined herein) except that newspapers shall be placed on private property in such a manner as to prevent their being carried or deposited by the elements upon any street, sidewalk or other public place or upon private property.

(Code 1967, § 16A-15)

Sec. 22-86. Dropping litter from aircraft.

No person in an aircraft shall throw out, drop or deposit within the city any litter, handbill or any other object.

(Code 1967, § 16A-16)

Cross reference— *Airport, ch. 4.*

Sec. 22-87. Posting notices prohibited.

No person shall post or affix any notice, poster or other paper or device, calculated to attract the attention of the public, to any lamppost, street sign, traffic control device, public utility pole or public tree, or upon any private structure or building, except as may be required by law or authorized in writing by the city manager.

(Code 1967, § 16A-17; Ord. No. 2587, art. 1, 9-7-99; Ord. No. 3164, art. 1, 5-5-03)

Sec. 22-88. Litter on occupied private property.

No person shall throw or deposit litter on any private property within the city, whether owned by such person or not; provided, however, that this section shall not prohibit the deposit or storage of litter in receptacles for collection.

(Code 1967, § 16A-18)

Sec. 22-89. Owner of business to maintain premises free of litter.

The owner or person in control of a business shall maintain the property in such a manner that litter which is a result of his business operation will be prevented from being carried or deposited by the elements upon any street, sidewalk or other public place or upon any other private property. Owners or persons in control of a business shall keep their premises free from litter by picking up the litter at regular intervals and depositing this litter into receptacles. A regular interval shall be whatever period that is necessary to keep litter from being carried or deposited by the elements upon any street, sidewalk or other public place or upon any other property but shall be not less than twice a day, provided, however, that this section shall not apply to the owner or operator of the business who at reasonable intervals collects and removes such litter which has been carried or deposited by the elements upon a street, sidewalk or other public place or upon private property.

(Code 1967, § 16A-19)

Cross reference— *Licenses and business regulations, ch. 15.*

Sec. 22-90. Throwing, depositing rock, metal, glass, wood, etc., upon private premises of another or upon public property; penalty.

No person shall throw or deposit in or upon another person's private premises or a public place litter which consists in whole or in part of rock, metal, glass, wood, masonry, hard plastic or other similar hard substances. Notwithstanding section 22-72, each violation of this section shall be punishable by a fine of not less than one hundred dollars ($100.00) and not more than five hundred dollars ($500.00) or by imprisonment not exceeding three (3) months, or by both such fine and imprisonment.

(Code 1967, § 16A-20)

Sec. 22-91. Owner to maintain premises free of litter.

The owner or person in control of any private property shall at all times maintain the premises free of litter. Provided, however, that this section shall not prohibit the storage of litter in receptacles for collection.

(Code 1967, § 16A-21)

Sec. 22-92. Control of runoff water; penalty.

(a) It shall be unlawful for any person to fail, neglect or refuse to control the runoff of water from land possessed by him, or under his management or control, so that soil, dirt, gravel, rock, sand, trash, filth, or similar material, in an amount so as to constitute a nuisance, is carried upon a public sidewalk, street, or alley, or into publicly maintained drains or drainways.

(b) Any person who creates a nuisance on account of violation of section (a) above must abate that nuisance immediately whenever a duly commissioned police officer of the city determines that such nuisance is an immediate hazard for persons who travel upon said street, alley or sidewalk, or to the proper functioning of the drain or drainway. If a police officer makes that determination, he may order the responsible person to begin immediate clean-up and abatement of the nuisance, and should such person fail or refuse to comply with such police officer's order, the city shall have the right and authority to proceed to correct and remove said immediate hazard and charge the expense thereof to the person who is in violation of section (a) above.

(c) A person convicted of a violation of this section shall be punishable by a fine of not less than one hundred dollars ($100.00) per day nor in excess of five hundred dollars ($500.00) per day for each day of such violation. Each and every day a person fails to abate such nuisance shall constitute a separate offense.

(Ord. No. 1807, art. 1, 10-16-95)

Sec. 22-93. Removal of mud, dirt, etc., from public streets; penalty.

(a) Any person, firm or corporation to whom a building, demolition, grading, stormwater or floodplain permit has been issued shall remove at least twice each working day any mud, dirt, sticky substance, litter or foreign matter of any kind carried into or deposited upon any public street, public sidewalk, or other public way or place of the city by any vehicle, or by the wheels of any vehicle, entering or leaving the site of the project for which the building, demolition, grading, stormwater or floodplain permit was issued. The removal shall be performed once prior to noon, and once at the end of the working day.

(b) Any landowner involved in building construction, demolition, or grading shall remove at least twice each working day any mud, dirt, sticky substance, litter or foreign matter of any kind carried into or deposited upon any public street, public sidewalk, or other public way or place of the city by any vehicle, or by the wheels of any vehicle, entering or leaving the site of the project of the building construction, demolition, or grading. The removal shall be performed once prior to noon, and once at the end of the working day.

(c) If any person, firm or corporation referred to in sections (a) or (b) above shall fail or refuse to remove said mud, dirt, sticky substance, litter or foreign matter, within the times set forth hereinabove or when ordered to do so by a duly commissioned police officer of this city, the city shall have the right and authority to proceed to remove such substances and charge the expense thereof to such person, firm or corporation.

(d) A person convicted of a violation of this section shall be punishable by a fine of not less than one hundred dollars ($100.00) per day nor in excess of five hundred dollars ($500.00) per day for each day of such violation. Each and every day a person fails to remove such substance shall constitute a separate offense.

(Ord. No. 1808, art. 1, 10-16-95)

Secs. 22-94—22-110. Reserved.

FOOTNOTE(S):

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Cross reference— *Throwing injurious refuse on streets, § 24-11.* *(Back)*

State Law reference— *Solid waste disposal, RSMo, § 260.200 et seq.* *(Back)*

ARTICLE IV. WEEDS [3]

Sec. 22-111. Excessive growth prohibited.
Secs. 22-112, 22-113. Reserved.

Sec. 22-111. Excessive growth prohibited.

(a) It shall be unlawful for the owner of any property in the city, or any lessee or any occupant having control of such property, to allow any growth of weeds, grass or poisonous or harmful vegetation a greater height than ten (10) inches on the average within two hundred (200) feet of any building or one hundred (100) feet of any improved street, or any accumulation of dead weeds, grass or brush, within two hundred (200) feet of any building or one hundred (100) feet of any improved street. Whenever such private property abuts a public right-of-way or easement belonging to the City of Cape Girardeau, or any public entity, and there exists in such right-of-way or easement a tree lawn or grassy area between the private property line and the midline of said right-of-way or easement, then such tree lawn or grassy area shall be considered, for purposes of this section requiring cutting of grass or weeds, to be a part of the private lot which abuts the right-of-way or easement, and it shall be the duty of those responsible under this section for the maintenance of the private lot to equally maintain the tree lawn or grassy area within the abutting right-of-way or easement, and all of the provisions of this section shall apply with equal force and effect to said tree lawn or grassy area.

(b) Penalty. Any person convicted of violating section 22-111 shall be punished by a fine not exceeding five hundred dollars ($500.00) or by imprisonment not exceeding three (3) months, or by both such fine and imprisonment.

(c) The provisions as contained herein shall not be the exclusive remedy available to the city for enforcement of the public policy prohibiting excessive weed and vegetation growth and the city may pursue any additional remedies it may have as provided by law or elsewhere in this Code of Ordinances, including but not limited to the provisions of Chapter 13 of this Code of Ordinances.

(d) Each day any person remains in violation of section 22-111 hereof constitutes a separate offense for the purpose of prosecution in municipal court.

(Code 1967, § 13-47; Ord. No. 1212, § 1, 7-20-92; Ord. No. 3277, art. 1, 2-2-04; Ord. No. 4095, art. 1, 1-4-10)

Secs. 22-112, 22-113. Reserved.

Editor's note—

Section 2 of Ord. No. 1212, adopted July 20, 1992, repealed § 22-112 and § 22-113 in their entirety. Former § 22-112 was concerned with complaints, and derived from § 13-48 of the Code of 1967. Former § 22-113 was concerned with removal by city of grass, weeds, etc., and derived from § 13-49 of the Code of 1967.

FOOTNOTE(S):

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Cross reference— *Nuisances, § 13-31 et seq.* (Back)

State Law reference— *Authority of city to remove weeds and other nuisances, RSMo, §§ 71.285, 77.560.* (Back)

Chapter 23 Storm Water

Chapter 23 STORMWATER MANAGEMENT REGULATIONS [1]

Sec. 23-1. Definitions.
Sec. 23-2. Purpose.
Sec. 23-3. Applicability.
Sec. 23-4. Exemptions.
Sec. 23-5. Stormwater management plan application.
Sec. 23-6. Stormwater management plan.
Sec. 23-7. Project classification and fees.
Sec. 23-8. General design requirements for stormwater management plan and SWPPP.
Sec. 23-9. Hydraulic design considerations.
Sec. 23-10. Stormwater management system design requirements.
Sec. 23-11. Rights-of-way and easements.
Sec. 23-12. Maintenance responsibilities for stormwater management facilities.
Sec. 23-13. Illicit discharges.
Sec. 23-14. Plan adherence.
Sec. 23-15. Enforcement.
Sec. 23-16. Penalties for violation.
Sec. 23-17. Vested rights.
Sec. 23-18. Conflict with other ordinances and codes.
Sec. 23-19. Other permits.
Sec. 23-20. Interpretation.
Sec. 23-21. Abrogation and greater restrictions.
Sec. 23-22. Liability disclaimer.
Sec. 23-23. Final approval required.

Sec. 23-1. Definitions.

As used in this chapter, the following definitions apply:

Adverse impact. Any modifications, alterations, or effects on a feature or characteristic of surface waters including their quality, quantity, hydrodynamics, surface area, species composition, living resources, aesthetics or usefulness for human or natural uses which are or may potentially be harmful or injurious to human health, welfare, safety or property, to biological productivity, diversity, or stability, or which unreasonably interfere with the enjoyment of life or property, including outdoor recreation. The term includes secondary and cumulative, as well as direct impacts.

Applicant. The record owner, or his authorized representative, of a tract of land that is the site of development, or development activity within the scope of this chapter.

Base flood elevation. The elevation at any location delineating high waters having a one (1) percent probability of being equaled or exceeded in any given year, as determined by FEMA and described on the flood insurance rate maps (FIRMs).

Best management practice (BMP). Any physical, chemical or managerial practice that reduces soil erosion or reduces the amount of sediment or other pollutants discharging to or potentially discharging to the MS4. There are structural and nonstructural BMPs.

Building. Any structure built for the support, shelter or enclosure of persons, animals, chattels or movable property of any kind.

Capacity of a storm drainage facility. The maximum ability of a storm drainage facility to convey, detain or retain stormwater flows without causing substantial damage to public or private property, and in the case of a pipe, without surcharging.

Channel. A natural or artificial open watercourse with definite bed and banks which periodically or continuously contains moving water or which forms a connecting link between two (2) bodies of water.

Clearing. The act of removing trees or vegetation from a tract of land and disturbing soil conditions.

Conduit. Any channel, pipe, sewer or culvert used for the conveyance or movement of water, whether open or closed.

Control device. An element of a discharge structure which allows the gradual release of water under controlled conditions.

Control elevation. The design elevation of a discharge structure at which, or below which, water is contained behind the structure.

CPESC. Certified professional in erosion and sediment control.

Detention. The delay of storm runoff prior to discharge into receiving waters.

Detention basin. A facility constructed or modified to restrict the discharge of stormwater to a prescribed maximum rate, and to concurrently detain the excess waters that accumulate behind the outlet. A wet bottom detention basin is a structure designed to retain a permanent pool of water after having provided its planned detention of runoff during a storm event. A dry bottom detention basin is designed to be completely dewatered after having provided its planned detention of runoff during a storm event.

Detention storage. The temporary detaining or storage of stormwater in storage basins, or rooftops, in streets, parking lots, school yards, parks, open space, or other areas under predetermined and controlled conditions, with the rate of drainage therefrom regulated by appropriately installed devices.

Detention volume. The volume of water equal to the difference between the control elevation of a discharge structure and the maximum level at which water can be accumulated prior to discharge times the average area of open surface storage (between the control elevation and maximum level) behind the discharge structure.

Developer. Any individual, firm, corporation, association, partnership, or other entity involved in commencing proceedings under this chapter to effect the development of land for himself or another.

Development or *development activity.* Any manmade change to improved or unimproved land, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation, or drilling operation. Any subdivision of land as defined in the city's subdivision regulations, excluding minor subdivisions.

Differential runoff. The difference in rate and volume of stormwater runoff from a parcel or project in its undeveloped natural condition and its developed condition is known as the differential runoff.

Discharge. The rate of outflow of water from detention storage.

Discharge structure. A structural device, usually of concrete, metal, timber, etc., through which water is discharged from a project to the receiving water.

Drainage area. The area from which water is carried off by a drainage system; a watershed or catchment area.

Drainage easement. An easement for the sole purpose of allowing water to flow through it. The city shall not be responsible for maintenance in a drainage easement.

Drainage and maintenance easement. An easement for the purpose of allowing water to flow through it. The city shall be responsible for maintenance in a drainage and maintenance easement.

Drainage facility. An element in a drainage system which includes, but is not limited to, any of the following: conduits and appurtenant features, canals, channels, detention basins, ditches, streams, culverts, streets and pumping stations.

Drainage system. The surface or subsurface system which conveys water from or over the land, including all watercourses, water bodies and wetlands (also referred to as the "stormwater management system").

Easement. A grant by a property owner to the public, a corporation, or a person of the use of land for a specific purpose.

Elevation. The height in feet above mean sea level according to National Geodetic Vertical Datum (NGVD).

Emergency spillway. A saddle or low point facility located around the rim of a dammed impoundment such as a detention or retention basin for providing an efficient and safe means of conveying the maximum design flood discharge through the impoundment, without overtopping the dam.

Erosion. The wearing away of the land surface by the action of the wind, water, ice, gravity, or any combination thereof.

Excess stormwater runoff. The volume and rate of flow of stormwater discharged from a drainage area which is or will be in excess of that volume and rate which is specified in this chapter.

Fifteen-year storm. A rainstorm of varying duration and intensity having a 6.67 percent probability of being equaled or exceeded in any given year.

Filling. To place soil, rock, or other material over the natural topography of a site such that the natural grade and/or elevation is altered.

Floodplain. The special flood hazard land adjoining a watercourse, the surface elevation of which is equal to or lower than the base flood elevation (the 100-year flood), which is subject to periodic inundation during floods.

Flood fringe. The higher portion of the floodplain, immediately adjacent to and on either side of the floodway, occupied by quiescent or slow moving waters during floods.

Floodway. The channel of a watercourse and those portions of the adjoining floodplain which are reasonably required to carry and discharge the base flood.

Grading. To level or smooth to a desired or horizontal gradient.

High-water elevation. The elevation of floodwaters of a flood of specified frequency or occurrence at any given point.

Illicit discharge. Any direct or indirect discharge to the city's MS4 that is not composed entirely of stormwater, unless exempt pursuant to city ordinance.

Impervious surface. A surface which has been compacted or covered with a layer of materials so that it is highly resistant to infiltration of water. The term includes most conventionally surfaced streets, roofs, sidewalks, parking lots and similar structures.

Improvement. A structure on, or other alteration of land on a given site, including, but not limited to, grading, street paving, storm sewers, sanitary sewers and utilities.

MS4. Municipal separate storm sewer system.

Natural watercourse. A channel that is formed through the natural flow of stormwater runoff influenced by area topography. The channel can carry a flow of water continuously or intermittently. Such a channel can include but not be limited to swales, streams, creeks, gullies, ravines, or rivers of varying depths and lengths. These channels carry a stream of water which flows along a naturally defined path, usually with a bed and banks. It should, on casual examination, present the unmistakable evidence of the frequent action of running water. If the flow of water occurs periodically from natural causes and reaches a plainly defined channel of a permanent character, this is sufficient to establish a natural watercourse. A natural watercourse may be altered through construction or development activities, and yet remain a natural watercourse.

Off-site detention basin. A feature or structure for temporarily storing excess stormwater originating at two (2) or more sites having devices for controlling the rate of release of the stored water, and located downstream of all sites where the runoff originates.

100-year storm. A rainstorm of varying duration and intensity having a one (1) percent probability of recurring in any one (1) year.

On-site detention basin. A feature or structure for temporarily storing excess stormwaters, having devices for controlling the rate of release of the stored waters, and located within the sites where the runoff originates.

Overflow elevation. A design elevation of a discharge structure at which point, or above which point, water leaks out, or bleeds out, through a control device down to the control elevation.

Pass-through flow. Off-site water that is allowed to move through a detention basin without being detained or included in the detention calculations.

Peak flow. The maximum rate of flow of water at a given point in a channel or conduit resulting from a predetermined storm or flood.

Post-development conditions. Those conditions which are expected to exist, or do exist, after alteration, resulting from human activity, of the natural topography, vegetation and rate, volume or direction of surface or subsurface flow.

Predevelopment conditions. Those conditions which exist at a site prior to any alteration of the natural topography, vegetation, flow rate, flow volume, or direction of surface or subsurface flow. In the case of a site where development has occurred in the past the predevelopment condition shall be the physical conditions of the site at the time of the application for the permit.

Primary drainage (water management) systems. Includes major waterways and appurtenant structures or systems whose total tributary area from origin to outfall exceeds or equals fifty (50) acres.

Professional engineer or architect. An engineer or architect duly registered or otherwise authorized by the state to practice engineering.

Project site. Any site where construction activity will result in land disturbance by means of filling, clearing, excavating and/or grading.

Rational method. An empirical formula for calculating peak rates of runoff resulting from rainfall. Expressed mathematically, the formula is:

Q = CIA

Where:

Q = Peak flow in cubic feet per second (cfs)

C = Runoff coefficient or fraction of runoff to rainfall, dependent on type of surface cover and topography

I = Rainfall intensity, in inches per hour, for a specific storm and duration

A = Watershed area in acres

Receiving bodies of water. Any water body or stream into which surface waters flow.

Sedimentation. The process by which suspended solids from erosion are transported and deposited.

Site plan. The plan, usually in map form, prepared pursuant to the city council's zoning or other land development ordinances as a requirement for the development of property.

Stormwater pollution prevention plan (SWPPP). A plan developed by a qualified professional engineer or person certified in erosion and sediment control to establish controls to limit erosion and transport of sediment and other pollutants from a project site. The plan shall include the use of best management practices.

Stormwater runoff. The waters derived from rain falling or snow melting within a tributary drainage basin, flowing over the surface of the ground or collected in a stormwater drainage system, storm sewer or watercourse.

Subdivision. As defined in chapter 25 of this Code.

Time of concentration. The elapsed time for stormwater to flow from the most distant point in a drainage basin to the outlet or point in question.

Twenty-five-year storm. A rainstorm of varying duration and intensity having a four (4) percent probability of being equaled or exceeded in any given year.

Watercourse. Any stream, creek, brook, branch, natural or artificial depression, slough, gulch, reservoir, lake, pond or natural or manmade drainageway in or into which stormwater runoff and floodwaters flow either regularly or intermittently.

Watershed.

(a) An area of land that drains down slope to a lowest point. Water shed boundaries follow major ridgelines around channels and meet at the bottom, where water flows out of the watershed, a point commonly referred to as a channel, stream, creek, or river.

(b) A region or area bounded peripherally by a topographic divide and draining ultimately to a particular watercourse or body of water.

(Ord. No. 4253, § 1, 8-15-11)

Sec. 23-2. Purpose.

The purpose of this chapter is to lessen or avoid hazards to persons and property caused by uncontrolled stormwater runoff or by obstructions to drainage and to lessen the degradation of the quality of surface runoff.

(Ord. No. 4253, § 1, 8-15-11)

Sec. 23-3. Applicability.

(1) Any person or government entity within the city shall apply to the city manager or his designee for approval of a stormwater management plan and obtain a permit before commencing any development or development activity.

(2) A stormwater management plan shall be required of any platted subdivision for which no improvement plans have been submitted at the time this chapter takes effect.

(Ord. No. 4253, § 1, 8-15-11)

Sec. 23-4. Exemptions.

(1) Development within a subdivision shall not require approval of a stormwater management plan if each of the following conditions have been met:

(a) Drainage provisions for the project were previously approved and remain valid as part of a final plat.

(b) The development is conducted in substantial accordance with the stormwater management provisions contained in the development plan submitted with the final plat as approved.

(2) Development on isolated lots for single-family and two-family dwelling purposes shall not require approval of a separate stormwater management plan, nor a grading permit, unless the development involves altering, rerouting, deepening, widening, obstructing or changing in any way existing drainage facilities, degrades the quality of water, adversely affects any

wetland or adversely affects any sinkhole, watercourse or waterbody; or unless said lot is five (5) acres or more in size. Also, in order to qualify for exemption the lot must provide the following protection:

(a) Waste and material disposal. All waste and unused building materials (including garbage, debris, cleaning wastes, wastewater, toxic materials, or hazardous materials) shall be properly disposed of and not allowed to go offsite or in storm sewers.

(b) Tracking. Each site shall have graveled roads, access drives and parking areas of sufficient width and length to prevent sediment from being tracked onto public or private roadways. Any sediment reaching a public or private road shall be removed by street cleaning (not flushing) by those responsible before the end of each workday.

(c) All excavations, grading, or filling shall have a finished grade not to exceed three to one (3:1).

(d) Sediment shall be controlled and contained on site.

(e) For vacant land held for development, grass and other vegetative ground cover is required.

(f) All erosion control measures must be installed before land disturbing activity can take place and shall be installed according to the city engineer's standard details.

(g) Disturbed areas which are at a finished grade with installed utilities shall be permanently seeded and mulched or sodded within seven (7) days.

(h) Single-family lots that remain inactive for fourteen (14) days or more shall be established with temporary vegetation. This requirement may be waived if the landowner has sold the lot and construction activity is scheduled to begin within thirty (30) days of being sold.

(i) Slopes that are steeper than five to one (5:1) which are disturbed and are at final grade with installed utilities shall be covered immediately with seeding, mulch, or other covering appropriate for the season.

(3) Stormwater management plans may be waived for building construction or other development which will not adversely impact an existing drainage area or drainage on adjoining properties.

(4) Written notice of intent to commence development shall be delivered to the city manager or his designee prior to undertaking any development activity, whether exempt from plan provisions or not. Application for a building permit may constitute notice of intent.

(Ord. No. 4253, § 1, 8-15-11)

Sec. 23-5. Stormwater management plan application.

(1) *Purpose.* The purpose of the stormwater management plan review process is to provide an organized framework for evaluating and acting upon proposals for development as they can relate to stormwater management issues.

(2) *Required information.* It is the responsibility of an applicant to include sufficient information in the stormwater management plan to enable evaluation of the environmental quality of the affected area, the potential and predicted impacts of the proposed activity on affected waters, and the effectiveness and acceptability of the measures proposed by the applicant for preventing or reducing adverse impacts. Adverse impacts would include any reduction in water quality of stormwater runoff leaving the project site. The applicant shall furnish the city manager or his designee the stormwater management plan application form and stormwater management plan, sealed by a professional engineer or architect registered in the state or by

a CPESC. The applicant shall include as part of the stormwater management plan a stormwater pollution prevention plan (SWPPP) for the project site. The SWPPP shall describe methods and BMPs proposed to maintain acceptable water quality for runoff water leaving the site.

(3) It is required that the owner/developer, or their agent, meet with the city manager or his designee to discuss the proposed development and the stormwater management aspects of the proposed development during the conceptual layout stage of the project.

(4) The application form required the following minimum information:

(a) The name, address and telephone number of the applicant, and the owner if different from the applicant.

(b) Name and address of the professional engineer, architect or CPESC.

(c) The legal description of the property.

(5) An application for stormwater permit shall be deemed abandoned one hundred eighty (180) days after the date of filing, unless an extension has been requested in writing or a permit has been issued.

(Ord. No. 4253, § 1, 8-15-11; Ord. No. 4404, art. 1, 12-17-12)

Sec. 23-6. Stormwater management plan.

A stormwater management plan, including the SWPPP, is to be designed to safely manage the stormwater runoff for quantity and quality during and after construction. The plan shall be designed to manage the quality of stormwater runoff during development through erosion and sedimentation controls and after development through post construction design elements. The SWPPP is to be prepared and sealed by a professional engineer licensed in the State of Missouri or a CPESC. The plan shall provide or be accompanied by maps at a minimum scale of one (1) inch is less than or equal to two hundred (200) feet and other descriptive material, including the basis of computation, showing the following:

(1) Required predevelopment site information (map scales are minimums):

a. Detailed location sketch showing the parcel and major adjacent roads.

b. Topographic map of the site at a scale of one (1) inch is less than or equal to two hundred (200) feet with maximum five-foot contour intervals, except in floodplains or other areas of low relief where a smaller interval may be required.

c. Where percolation or exfiltration systems are proposed, information as to the location and type of vegetative cover and soil types and characteristics representative of the design condition mapped at a scale of one (1) inch is less than or equal to two hundred (200) feet.

d. Location of streams and other floodwater runoff channels, their normal channels, and the extent of the floodplains at the established high water elevations, and the limits of the floodway mapped at a scale of one (1) inch is less than or equal to two hundred (200) feet.

e. Location of lakes, ponds, swamps and detention basins indicating their normal shorelines, floodplains and lines of inflow and outflow mapped at a scale of one (1) inch is less than or equal to two hundred (200) feet.

f. Location of farm drains, inlets and outfalls, storm sanitary and combined sewers and outfalls, septic tank systems and outlets, if any, and seeps, springs

and flowing and other wells mapped at a scale of one (1) inch is less than or equal to two hundred (200) feet.

g. Location and description of nearby existing off-site water management facilities such as wells, lakes, drainageways, etc., which are potentially directly affected by the proposed construction or development, mapped at a scale of one (1) inch is less than or equal to two hundred (200) feet.

(2) For all existing drainage facilities which are to be maintained, altered, or enlarged as part of the stormwater management system; provide information as to their size, slopes, depths, outfalls, receiving waters, elevations, cross sections, profiles, construction materials and other design details as applicable.

(3) Location of all new stormwater facilities, including detention basins and post construction water quality elements, to be constructed. Design details for each facility shall be provided as applicable.

(4) Location and extent of existing and proposed impervious surfaces (roads, parking lots, buildings, etc.) and their elevations. Provide grading and paving plans and specifications.

(5) Location and extent of rights-of-way and easements for the stormwater management system, including all areas to be dedicated for water management purposes.

(6) Identification and description of any special or required maintenance procedures to keep the project functioning as designed.

(7) Provide stormwater management system design calculations as follows:

a. Design storms used.

b. For all detention basins, a plot or tabulation of storage volumes with corresponding water surface elevations and of the basin outflow rates for those water surface elevations.

c. Acreages and percentage of property proposed as:

1. Impervious surfaces.
2. Pervious surfaces (green areas).
3. Lakes, canals, detention areas, etc.
4. Total acreage of project.
5. Other.

d. Runoff routing calculation showing discharge, elevations, and volumes retained and/or detained during applicable storm event.

e. Calculations required for determination of minimum building floor and road elevations.

f. Calculations for all inlets, pipes, and ditches shall be submitted for review.

(8) For projects less than one (1) acre, provide a narrative section that describes potential sources of pollution, project managers for the project and areas over which they have control, temporary and permanent nonstructural BMPs, temporary and permanent structural BMPs, additional site BMPs as warranted by the site, BMP implementation schedule, temporary stabilization practices, dewatering methods, permanent stabilization practices, measures to minimize dust, construction/waste materials to be stored on site and how they will be disposed, pollutant sources from other areas than construction, allowable sources of nonstormwater discharge, how mud/sediment on streets or other property will be handled, how accumulated sediment will be disposed, and implementation of pollution prevention measures for nonstormwater discharges.

(9)

For projects one (1) acre or greater, provide two (2) bound copies of the SWPPP based on the EPA SWPPP template. Required information includes identifying contact information for responsible parties; site evaluation, assessment and planning; documentation of compliance with other federal requirements; erosion and sediment controls; pollution prevention standards; and inspection and corrective action.

(10) Describe operation and maintenance procedures for stormwater management facilities, i.e., cleaning frequency, access routes, any special equipment or tools to be used. This should include procedures for transfer of maintenance responsibilities where appropriate.

(11) Identify entity responsible for operation and maintenance of the erosion and sediment control system after completion of site activities.

(12) The requirements for specific plan elements cited above may be waived by the city manager or his designee, upon written supportive recommendation of the city engineer. The stormwater management plan for minor development activities may consist of a certification from a professional engineer, architect or CPESC that the differential runoff equals zero (0). However, the developer shall still provide a completed application, the required review fee and SWPPP for the project site.

(13) The city manager or his designee will ascertain the completeness of the stormwater management plan application. The city manager or his designee will return incomplete applications to the applicant for completion and resubmission. After determining that the application is complete, the city manager or his designee will distribute copies of the application for review and comment to other persons with special technical expertise as deemed appropriate. Within a reasonable period after submission of the completed stormwater management plan application by the applicant, the city manager or his designee shall approve, approve with specified conditions, or deny the application and shall notify the applicant accordingly. If the stormwater management plan application is denied or approved with conditions, the city manager or his designee shall state the reasons for denial or the specified conditions. If the applicant feels aggrieved due to the denial or conditions, he may appeal the decision to the city council.

(14) Once the SWPPP is approved, a copy of it shall be kept at the construction site at all times. The SWPPP shall be updated according to progress of the work that disturbs the soil. Typically this update will be done weekly. It will be the contractor's responsibility to provide the means of storing the SWPPP on site.

(15) A stormwater management permit shall be valid for three (3) years after the date of issuance. If the stormwater management facilities for which the permit was issued are not completed within three (3) years, the permittee may request a renewal of the said permit. The permit renewal fee must be paid in full at the time of the renewal request. The permit renewal fees are outlined on the city fee schedule. The city manager or his designee has the right to approve or deny any permit renewal request.

(Ord. No. 4253, § 1, 8-15-11; Ord. No. 4404, arts. 2, 3, 12-17-12)

Sec. 23-7. Project classification and fees.

(1) For purposes of evaluation, projects will be classified in three (3) categories according to acreage:

Class

(a) Less than twenty-five (25) acres.

(b) Twenty-five (25) acres to two hundred (200) acres.

(c) Over two hundred (200) acres.

(2) The effective acreage for a project is not limited to a fractional part of the total concept, rather if a project is developed in phases or small plots, the total acreage of the conceptual project will be considered.

(3) The review fee shall be collected at the time the stormwater management plan application is submitted by the applicant to the city manager or his designee, and will reflect the cost of the administration and management of the review process. The fees for the project classes are outlined on the city fee schedule.

(Ord. No. 4253, § 1, 8-15-11)

Sec. 23-8. General design requirements for stormwater management plan and SWPPP.

(1) A stormwater management system shall be provided for protecting lots, roads, streets and buildings in the project area from the potential adverse impacts of stormwater runoff. Streets, blocks, depths of lots, parks and other public grounds, and ultimate land usage shall be determined, located and laid out in such a manner as to reduce the velocity of overland flow and allow the maximum opportunity for infiltration of stormwaters into the ground, and to preserve and utilize natural streams, channels and detention basins, and wherever possible, to include streams and floodplains within parks or other public grounds. The elements of the stormwater management plan should protect area waterways from pollutants carried by the stormwater runoff.

(2) The maximum allowable release rate of stormwater after development shall be as follows:

(a) The rate shall not exceed the before-development rate for a two-year and ten-year frequency storm.

(b) The twenty-five-year storm shall have the release rate of a fifteen-year frequency storm.

(c) The total drainage area must be used in calculating the allowable release rate. The required storage volume will be based on the project area only, with extraneous flows from upland areas being pass-through flow or discharged via overflow spillway or other devices.

(d) The runoff from a one-inch rain event shall be controlled to provide water quality improvement. This is approximately the ninetieth percentile rain event.

(3) The increased stormwater runoff resulting from the proposed development shall be detained on-site by appropriate detention basins or by other acceptable techniques. The minimum volume of storage shall be sufficient to store the volume from a twenty-five-year storm (under developed conditions). Control devices shall limit the discharge from storage to a rate no greater than that prescribed by this chapter. Downstream property, watercourses, channels or conduits shall not receive stormwater runoff from proposed development at a higher peak flow rate than that which existed prior to the development. Detention/retention areas should at a minimum filter the stormwater runoff. When possible, filtration and/or infiltration practices should be incorporated into the site design.

(a) Where a development site has more than one (1) watershed, the runoff water shall be controlled within each watershed. Exemption from this requirement must be approved by the city manager or his designee. With a request for this exemption, the developer will be required to present information and/or documentation establishing conclusively

that no adverse impacts would occur to adjoining or downstream properties from uncontrolled runoff in a particular watershed area of the development site.

(4) Generally acceptable locations of the stormwater runoff channels in the design of the project area may include the following:

(a) In a depressed median of a double roadway, street or parkway, provided the median is wide enough to permit required roadway shoulders.

(b) Centered on the rear lot lines in a block, or entirely within the rear yards of a single row of lots or parcels, provided that in either case the lots are deep enough to permit side slopes in the runoff channel and a building site of the elevation required by other sections of this chapter.

(c) In a depressed area along roadway, street or parkway, provided the area is wide enough to permit side slopes as required in other sections of this chapter.

(d) Landscaped areas may be designed for use as part of the stormwater management system.

(e) Alternative systems such as curb and gutter and storm sewers that discharge into an appropriate detention basin may be incorporated into the stormwater management plan.

(f) The smaller, uppermost reaches of drainage channels and swales forming the natural drainage system near a watershed divide may be relocated or eliminated and incorporated into the planned system of storm sewers and open channels designed consistent with the requirements of this chapter.

(5) A continuous easement may be provided abutting rear lot lines as shown in the stormwater management plan within which utility lines and open drainage facilities may be located and maintained, but on which no accessory buildings may be constructed. The utility drainage easement shall be at least twenty (20) feet wide. Within the area so designed for the passage or storage of waters, no structure may be erected, no fences, shrubbery or trees planted, or changes made to the prescribed grades and contours of the specified floodwater or stormwater runoff channels.

(6) All storm sewer outfalls shall be so designed, by reason of elevation of the invert, by a flap gate or by other features, that when the receiving stream is in full flood, the storm sewers will continue to drain the areas they are designed to serve unless the provision is made for sewer backups into planned storage locations.

(7) All sanitary sewer manholes constructed in a floodplain, in a street designed for detention, or in an area designed for the storage or passage of floodwater or stormwater, shall be provided with either a watertight bolted manhole cover, a watertight concealed pick-hole cover, or be constructed with a rim elevation at or above the high water elevation of the 100-year flood or the high water elevation of the design storm, whichever is applicable to the specific area.

(8) Projects that are to be developed in phases will normally require the submission of a master plan of the applicant's contiguous land holdings. Applications for individual project phases may be considered only when the phases are totally independent of, or make sufficient provisions for, adjacent lands.

(9) All excavations, grading or filling shall have a finished grade not to exceed a 3:1 (three (3) horizontal to one (1) vertical) slope. Steeper grades may be approved the city engineer if the excavation is through rock or the excavation or fill is protected {a designed head wall or toe wall may be required). Retaining walls that exceed a height of four (4) feet shall require the construction of safety guards identified in the building code identified in section 7-27 and subsequent amendments thereto. Permanent safety guards will be constructed in

accordance with the building code identified in chapter 7 and subsequent amendments thereto.

(10) Grading plans for sites that exceed one (1) acre shall provide for erosion control and for sediment controls, or debris basins, silt traps or filters, staked straw bales, a combination of these measures or other measures approved by the city engineer to remove sediment from runoff waters. Temporary sediment control measures (structural) shall be maintained until vegetative cover is established at a sufficient density to provide erosion control on the site.

(11) Where natural vegetation is removed during grading, vegetation shall be reestablished in such a density as to prevent erosion. Permanent type grasses shall be established as soon as possible during the next seeding period after grading has been completed. Trees, plants and vegetative cover should be of native species, when possible. Reference the city development manual and other city ordinances for examples.

(12) When grading operations are completed or suspended for more than fourteen (14) days between permanent grass seeding periods, temporary cover shall be provided. All finished grades (areas not to be disturbed by future improvements) 4:1 slopes or steeper shall be sodded, hydro seeded, or have erosion control fabric installed; slopes less than 4:1 (four (4) horizontal to one (1) vertical) shall be mulched at the rate of one hundred (100) pounds per one thousand (1,000) square feet when seeded.

(13) Ground adjoining project sites (lots) shall be provided with protection from accelerated and increased surface water, silt from erosion, and any other consequences of erosion. Runoff water from developed areas (parking lots, paved sites, and buildings) above the area to be developed shall be directed to diversions, detention basins, concrete gutters, and/or underground outlet systems. Sufficiently anchored straw bales may be substituted with the approval of the city engineer.

(14) Development along natural watercourses shall have a minimum fifty-foot general maintenance and drainage easement. The easement shall be measured from the top of the existing stream bank. Development shall not encroach on said fifty-foot easement. The watercourse shall be maintained by and be made the responsibility of the appropriate legal entity. Permanent vegetation should be left intact. Variances will include designed stream bank erosion control measures and shall be approved by the city engineer. FEMA guidelines shall be followed where applicable regarding site development in floodplains.

(15) All lots shall be seeded and mulched or sodded before an occupancy permit shall be issued.

(16) BMPs for post construction water quality improvement are to be used when feasible. Designers are encouraged to implement cooperative use of required landscaping areas and stormwater quality measures. Examples of these BMPs are located in the city standards and specifications.

(Ord. No. 4253, § 1, 8-15-11; Ord. No. 4404, arts. 4—6, 12-17-12)

Sec. 23-9. Hydraulic design considerations.

(1) Stormwater systems will be designed with sufficient hydraulic capacity as a minimum for the following frequencies and durations:

	Type of Facility	Design Frequency
(a)	Detention basins	25-year
(b)	Primary drainage systems	25-year
(c)	Bridges	50-year

(d)	Secondary drainage systems, i.e., crossdrains and ditches for internal subdivision drainage	15-year

(2) The city manager or his designee may require alternative designs or features to reduce the cost of long-term maintenance.

(3) In critical areas, the city manager or his designee may require additional hydraulic capacity above the minimums set forth above, up to the 100-year frequency design.

(4) The city manager or his designee may require a developer to improve the stormwater facilities immediately upstream or downstream of a development if adverse impacts from said development are foreseen. The developer will be responsible for all costs associated with the improvements.

(Ord. No. 4253, § 1, 8-15-11)

Sec. 23-10. Stormwater management system design requirements.

(1) *Calculations.* The design of the stormwater system shall be in accordance with the City of Cape Girardeau's Storm Drainage Design Manual (if available). If not available, the development calculations shall be based on the minimum of one (1) fifteen-minute rainfall using the following:

Watershed Area (acres)	Method
0—25	Rational(See Note 1)
>25	Technical Release 55 (TR-55) (See Note 2)

Note 1: Rational Method shall be as identified in Missouri Department of Transportation Design Manual Chapter IX - Hydraulics and Drainage current edition.

Note 2: Technical Release 55 (TR-55) shall be as identified in the NRCS Urban Hydrology for Small Water Sheds.

(2) *Open channels.*

(a) Open channels, natural or improved, may be placed at the rear or side of properties upon approval of the city engineer where the design provides adequate protection to the existing and future property and structures. Such protection shall be through the provision of a fifty-year floodplain setback and a minimum distance from the toe of bank to the setback of fifty (50) feet. This drainage setback line shall be shown on the final plat. Permanent vegetation, existing ground elevation, and grades within the fifty-foot setback area shall be left intact and undisturbed on channels with watersheds of one hundred (100) acres or more unless modification is approved in writing by the director or his designee.

(b) Area inlets shall be required behind the curbs to intercept overland flows greater than one (1) cfs to prevent flows from crossing sidewalks and/or curbs.

(3) *Inlets and junction boxes.* Inlets, junctions boxes and inlet spacing shall be per the city's standard details and as approved by the city engineer. When locating inlets in sump locations consideration must be made with respect to the major drainage system. A 100-year

design event shall not cause buildings to flood in the event that a single inlet becomes blocked. In new developments the 100-year design storm elevation shall be mapped on the final plat as a building setback. Overland relief to another inlet or surface channel shall be provided to protect property.

(4) *Enclosed systems.*

(a) The outlet of an enclosed system shall have sufficient energy dissipation provided to negate the increases posed by development as approved by the city engineer.

(b) Building gutter drainage systems may not be discharged directly into the city's enclosed system.

(c) If development plans call for the enclosure of an existing, natural drainageway which carries greater than fifty (50) cfs during the design storm event, the enclosure shall be sized for a fifty-year twenty-minute storm event. Upstream inundation shall be checked. Where inundation extends beyond the site property line and exceeds the design water surface elevation of the natural drainway/channel, a backwater ponding easement from the affected off-site property owner(s) shall be required prior to final plan approval. A reduction in the design storm requirement may be granted by the city engineer when existing off-site, downstream storm sewer would be smaller than the required on-site, upstream sewer and the downstream storm sewer are not designed to intercept/pass the fifty-year twenty-minute storm event.

(5) *Detention design criteria.* Detention in the overall system, including swales, lakes, canals, greenways, etc., shall be provided as follows.

(6) *General.*

(a) *Storage volumes.* The minimum volume of storage provided in detention basins, together with such storage as may be authorized in other on-site facilities, shall be sufficient to store the volume from a twenty-five-year storm (under developed conditions).

(b) *Outlet control structures.* Outlet control structures shall be designed to operate simply and automatically. They will limit discharges into existing or planned downstream channels or conduits so as not to exceed predetermined maximum authorized peak flow rates.

(c) *Release rate.* A release rate shall be calculated for a two-, ten-, or twenty-five-year storm for the proposed development in the condition prior to the proposed development.

(d) *Emergency spillway.* Emergency overflow facilities must be provided in all instances so that stored waters will not exceed the safe capacity of the basin. At a minimum, the emergency spillway must be able to pass without damage the 100-year storm.

(e) *Appearance.* Designs should result in aesthetically pleasing configurations which will enhance public acceptability.

(7) *Dry-detention facilities.*

(a) Perimeter maintenance easements of twenty (20) feet (minimum) width at slopes no steeper than three to one (3:1) (horizontal to vertical) shall be provided.

(b) Side slopes of the facility shall not be steeper than three to one (3:1) (horizontal to vertical).

(c) Provisions must be incorporated to facilitate complete interior drainage to dry bottom basins, to include the provision of natural grades to outlet structures, longitudinal and transverse grades to perimeter drainage facilities, or the installation of subsurface drains.

(d) Multipurpose features may be designed to serve secondary purposes for recreation, open space or other types of use which will not be adversely affected by occasional or intermittent flooding.

(e) In no case shall the limits of maximum ponding elevation be closer than twenty-five (25) feet horizontally from any building and less than two (2) feet vertically below the lowest sill elevation. The entire reservoir area shall be seeded, fertilized and mulched, sodded or paved.

(f) Fully paved low flow channels are prohibited. The flow channel for low flow events shall be reinforced turf or open sectioned pavers with grass or aggregate to allow filtering of the stormwater and to support mowing equipment. Other methods may be used as approved.

(8) *Wet-detention facilities.*

(a) Perimeter maintenance and operation easements of twenty (20) feet (minimum preferable) width at slopes no steeper than three to one (3:1) (horizontal to vertical) shall be provided.

(b) Control elevations should be no higher than two and one-half (2½) feet below the minimum road centerline elevation in the area served by the control device in order to protect the road subgrade when structures are constructed near roads.

(c) Side slopes shall not be steeper than three to one (3:1) (horizontal to vertical) out to a depth of two (2) feet below the control elevation, then as steep as soils stability will allow.

(d) If fish are to be used to help keep the basin clean, at least one-quarter (¼) of an area of the permanent pool must be a minimum depth of ten (10) feet.

(e) For emergency purposes, cleaning or shoreline maintenance, facilities shall be provided or plans prepared for the use of auxiliary equipment to permit emptying and drainage.

(f) The limits of maximum ponding elevations are to be no closer than thirty (30) feet horizontally from any building and no less than two (2) feet below the lowest sill elevation of any building.

(9) *Underground storage.* All or a portion of the detention storage may also be provided for in underground facilities, as long as all applicable requirements of this chapter are met. Details of such designs are to include type of facility, depth and volume of storage, details of inlet and outlet devices and locations, emergency overflow provisions, and measures to be used for surface water and groundwater pollution control.

(10) *Design alternatives.* The above listing of design criteria is not intended to preclude the use of other known state-of-the art methods and available best management practices and should not be construed as a mechanism to discourage innovative design concepts.

(11) *Developments adjoining a floodplain.* Where a development adjoins or encompasses a portion of a floodplain for a 100-year flood, the following shall apply:

(a) The applicant shall show the floodplain and floodway on the stormwater management plan.

(b) The applicant shall include in the stormwater management plan all other plans, plats, specifications, etc., required by federal, state, county and/or municipal laws or regulations detailing such provisions or restrictions as are necessary to comply with the following:

1. All applicable zoning and subdivision requirements.
2. All applicable building code requirements.

3. All requirements of other federal, state or local agencies exercising jurisdiction over the area.

(12) *Channel flow* The applicant shall not alter any channel in such a way that would prohibit any section of the channel from conveying, in its post-development state, the same amount of flow at the same or lower maximum water elevation that it conveyed in its predevelopment state.

(13) *Modifications of channel.* The applicant shall furnish, for the city manager's or his designee's review and approval, the following information pertaining to proposed channel modifications:

(a) Typical cross sections of the existing and proposed channel.

(b) Plan view of the channel showing the location of existing constructions, obstructions and other nontypical areas.

(c) Hydrographs and/or flood routing calculations and backwater curve profiles of the proposed waterway corresponding to a storm recurrence interval of one hundred (100) years.

(d) Engineering evaluation of all potential increases in flood hazards to the adjacent upstream or downstream private or public lands and facilities located thereon, showing provisions for eliminating any and all adverse impacts on such land and facilities at no public cost.

(e) Minimum finished floor elevations which shall be set at or above the maximum water surface elevation as determined by either or both of the following:

1. "Flood Insurance Rate Map" published by the Federal Emergency Management Agency.

2. Backwater curve profiles of the proposed waterway due to a 100-year storm recurrence interval.

(f) Designation on the final plan of all areas reserved for flood routing, detention or storage, together with the required wording pertaining to restrictions, dedications and maintenance responsibilities of such areas.

(14) *Detention storage.* If detention storage is provided within a floodplain, only the net increase in storage volume above that which naturally existed on the floodplain shall be credited to the development. No credit will be granted for volumes below the elevation of the regulatory flood at that location unless compensatory storage is also provided.

(15) *Verification of adequacy.* Analysis of all elements of design is to be verified by the engineer of record submitting the plan. The following outline is provided to ascertain that certain critical elements are in workable compliance with the aims of this chapter. For projects less than fifty (50) acres in area there is no need for submittal of routing calculations or tabulated proof of adequacy of tributary runoff for detention; however, it is recommended that verification be made of:

(a) Volume of detention for the total project.

(b) Tributary (Q) peak runoff to basin.

(c) Balanced maximum outflow rate from the low-flow structure.

(d) Ratios of inflow to outflow rates.

(e) Sizing of the overflow facilities.

(f) Stability of detention dikes.

(g) Safety features.

(h) Maintenance features.

For projects of fifty (50) acres or greater but less than two hundred (200), routing calculations shall be submitted in legible tabulated form. Proof of adequacy of volume of detention and sizing computations for low-flow structure shall also be submitted. Features of stability and safety may also need to be documented if the scope of the project requires special attention in this area of design.

Projects over two hundred (200) acres in area shall provide documented verification of adequacy according to scope and complexity of design.

(16) *Installation of stormwater runoff control measures.* Positive stormwater runoff control shall be provided for during development. Stormwater management plans shall include a schedule for the installation, construction or modification of all drainage facilities. Erosion control measures and a schedule for their installation shall be shown on the stormwater management plan. Installation of drainage facilities and erosion control measures shall proceed as scheduled in the approved stormwater management plan.

(17) *Erosion and sedimentation control criteria.* The best management practices to control the occurrence of erosion and sedimentation are to be incorporated into the plan for the time land is disturbed by development activity. Permanent controls and practices shall also be identified where they are necessary to control an ongoing potential for erosion and sedimentation. Types of best management practices include, but are not limited to:

(a) Use of state approved standard specifications of the city.

(b) Tree, topsoil and vegetative cover preservation and restoration.

(c) Surface stabilization with various natural or manmade materials.

(d) Runoff control measures that address quantity and quality of runoff waters such as berms, dikes, sediment traps, filtration and infiltration methods and barriers.

(e) Inlet and outlet protection.

(f) Stream bank protection.

(g) Scheduling of development activities and protection measures for minimal impact.

(h) For post construction water quality controls, landscaped areas may be used.

(Ord. No. 4253, § 1, 8-15-11)

Sec. 23-11. Rights-of-way and easements.

(1) All stormwater management facilities shall be constructed within an easement or right-of-way dedicated for stormwater management use and connected to a public road or other location from which operation and maintenance is legally available. Minimum rights-of-way and maintenance easements shall be provided by instrument or plat dedication for all waterways used to convey or detain runoff. Where permanent maintenance will be provided by the property owner, maintenance easements or rights-of-way may not be required. The minimum widths of rights-of-way and easements shall be as follows:

Facility	Maintenance Access Width
Open drainage channel or facility	50 feet from top of bank
Greenways	Width of greenway
Pipes and culverts	20 feet centered
Detention areas	20 feet continuous around total area
Connecting access	20 feet

(2) Easements must include the "top of the bank width" and the maintenance access width.

(3) The maintenance access width begins at the point of the bank or slope of the facility.

(4) Additional maintenance access width may be required by the city manager or his designee in special circumstances where more width on one (1) or both sides is necessary for maintenance purposes.

(Ord. No. 4253, § 1, 8-15-11)

Sec. 23-12. Maintenance responsibilities for stormwater management facilities.

(1) *Purpose.* The purpose of this section is to establish maintenance standards to ensure that after stormwater management facilities have been properly designed and constructed, they continue to function properly. Continued proper functioning is highly dependent upon the proper maintenance of the facilities. Proper long term function is critical to maintaining the water quality improvement aspects of the stormwater management facilities.

(2) *Design of facilities.* Maintenance costs over a period of years will generally surpass the costs of initially constructing water management facilities. The applicant and the city manager or his designee should utilize all appropriate methods, approaches and techniques to design and construct these facilities in such a manner that fulfills the requirements of this chapter, facilitates their inspection, facilitates cleaning and repair activities, and minimizes future maintenance costs. The design should include provisions for access to areas requiring cleaning and/or maintenance work after the project is constructed.

(3) *Inspection of facilities.* Inspection of stormwater management facilities should be performed annually, at a minimum. The owner is responsible to have the inspection performed by a competent individual or firm. A written report of the inspection, including findings and recommendations, is to be sent to the city manager or his designee. When cleaning or repairs are recommended, the owner shall send a subsequent report to the city manager or his designee documenting that the recommended action has been completed. The city manager or his designee has the authority to inspect all stormwater facilities on public or private property to confirm proper maintenance is being performed. Enforcement shall follow the guidelines set forth in this chapter.

(4) *Maintenance responsibilities.* The growth of noxious weeds, the creation of conditions which support the growth of mosquitoes and other insects, and the decrease in available storage by accumulated sediments shall be controlled. The cleanup of accumulated debris, flotsam and other materials after runoff events have subsided shall be assured.

(a) Detention facilities, when mandatory, are to be built in conjunction with the storm sewer installation and/or grading. Since these facilities are intended to control increased runoff, they must be partially or fully operational soon after the clearing of the vegetation. Silt and debris connected with early construction shall be removed periodically from the detention area and control structure in order to maintain close to full storage capacity.

(b) The responsibility for maintenance of stormwater management facilities in single-lot development projects shall remain with the owner, developer and general contractor until final inspection of the development is performed and approved, and a legal occupancy permit, where applicable, is issued. After legal occupancy of the project, the maintenance of stormwater management facilities shall be vested with the owner of the project.

(c)

The responsibility for maintenance of stormwater management facilities in subdivision projects shall remain with the developer until such time as responsibility is transferred, under appropriate legal arrangements, to the private individual owners in the subdivision, the trustees of the subdivision, the city or such other maintenance entity or authority as may be proposed and approved by the city council.

(d) If responsibility is to be transferred to the private individual owners in the subdivision, the developer shall assure perpetual maintenance of the drainage management facilities, including detention systems, if any are included, through the adoption of maintenance agreements or covenants for any facilities that remain in private ownership. Such agreements or covenants shall be subject to the approval of the city manager or his designee.

(e) If the responsibility is to be transferred to the trustees of the subdivision, the developer shall establish a suitable indenture of trust. Upon release of escrows required for the subdivision development, the responsibility for maintenance shall be vested in the trustees of the subdivision by virtue of the trust indenture. The indenture of trust shall clearly indicate resident responsibility for maintenance and shall be subject to the approval of the city manager or his designee.

(5) *Performance and maintenance security.* Security against defects in workmanship shall be required for any portion of the drainage management facilities dedicated to the public. The terms of the performance security shall apply to any repairs needed and maintenance needed during the two-year period following completion. Inspection and repair of defects shall be required as a condition of release of the posted security.

(Ord. No. 4253, § 1, 8-15-11)

Sec. 23-13. Illicit discharges.

(1) *Prohibition of illicit discharges.*

(a) Pursuant to the National Pollutant Discharge Elimination System (NPDES) municipal separate storm sewer system (MS4) program illicit discharges to the MS4 are being defined as illegal. This is accomplished by identifying allowable nonstormwater discharges into the MS4 in the best interest of the City of Cape Girardeau, Missouri.

(b) Nonstormwater discharge means any discharge to the MS4, that is not rainwater or snow/ice melt. Except as hereinafter provided, all nonstormwater discharges into the MS4 are prohibited and declared to be unlawful. Common pollutants in the area served by the City of Cape Girardeau MS4 are, but not limited to, the following. Discharge of these items into the city stormwater system is prohibited:

Petroleum products, including, but not limited to, oil, gasoline, diesel fuel and grease.

Fats, oils and grease.

Paints.

Process water from industrial or domestic operations.

Chemicals, including household type products.

Solid waste.

Pet waste.

Phosphates and soaps.

Pesticides, fertilizers and herbicides.

Solvents and degreasers.

Sanitary sewage.

Antifreeze and other automotive products.

Chemically treated cooling water.

Yard waste including trees and parts of trees.

Any discharge causing interference in the MS4.

(2) *Allowable nonstormwater discharges.* Unless the City of Cape Girardeau, MoDNR, EPA or other regulatory agency has identified them as a source of pollutants to the waters of the State of Missouri, the following nonstormwater discharges into the municipal separate storm sewer system are lawful:

Water line flushing or other potable water sources.

Landscape irrigation or lawn watering with potable water.

Diverted stream flows.

Rising groundwater.

Groundwater infiltration to storm drains.

Pumped groundwater.

Foundation or footing drains.

Crawl space pumps.

Air conditioning condensation.

Springs.

Noncommercial washing of vehicles.

Natural riparian habitat or wetland flows.

Swimming pools (if dechlorinated).

Firefighting activities.

Discharges specified in writing by the City of Cape Girardeau as being necessary to protect public health and safety.

Waters used to wash vehicles and equipment, provided that there is no discharge of soaps, solvents, or detergents used for such purposes.

Water used to control dust.

Routine external building wash down that does not use detergents.

Construction dewatering water that has been treated by an appropriate control.

(Ord. No. 4253, § 1, 8-15-11; Ord. No. 4404, art. 7, 12-17-12)

Sec. 23-14. Plan adherence.

The applicant shall be required to adhere strictly to the stormwater management plan as approved. Any changes or amendments to the plan must be approved by the city manager or his designee in accordance with the procedures set forth in this chapter obtaining stormwater management plan approval. Enforcement officials shall be, and are herein, granted inspection rights and right-of-entry privileges in order to ensure compliance with the requirements of this chapter.

(Ord. No. 4253, § 1, 8-15-11)

Sec. 23-15. Enforcement.

(1) *Approved projects.* The city manager or his designee shall carry out periodic inspections of the project site to ensure the applicant's compliance with this chapter. If it is determined that the project is not being carried out in accordance with the approved stormwater management

plan, the city manager or his designee is authorized to enforce compliance through the following steps in this order:

(a) *Written notice.* Issue written notice to the applicant or owner, specifying the nature and location of the alleged noncompliance, with a description of the remedial actions necessary to bring the project into compliance within a reasonable specified time.

(b) *Stop work order.* If the remedial work identified in the written notice is not completed within the specified time issue a stop work order directing the applicant or owner to cease and desist all or any portion of the work which violates the provisions of this chapter.

(c) *Revocation of approval.* Should the applicant or owner not bring the project into compliance following receipt of the written notice and stop work order, he shall then be subject to immediate revocation of his stormwater management plan approval and to the penalties described in this chapter.

(d) *Appeal.* Any notice, order or revocation issued pursuant to subsection (a)(1), (a)(2) or (a)(3) above shall become final unless the person named therein requests, in writing, no later than ten (10) days after the date such notice, order or revocation is served, a hearing before the city council.

(2) *Unapproved projects.* With respect to any development or development activity determined by the city manager or his designee to be subject to this chapter, and being carried out without approval, the city manager or his designee is authorized to enforce compliance through he following steps in this order:

(a) *Written notice.* Issue written notice to the owner specifying the nature and location of the alleged noncompliance, with a description of the remedial actions necessary to bring the project into compliance within a reasonable specified time.

(b) *Stop work order.* If the remedial work identified in the written notice is not completed within the specified time, issue a stop work order directing the owner to cease and desist all or any portion of the work which violates the provisions of this chapter.

(c) *Noncompliance with stop work order.* Should the owner not bring the project into compliance with the written notice and stop work order he shall then be subject to the penalties described in this chapter.

(d) *Appeal.* Any notice, order or revocation issued pursuant to subsection (b)(1), (b)(2) or (b)(3) above shall become final unless the person named therein requests, in writing, no later than ten (10) days after the date such notice, order or revocation is served, a hearing before the city council.

(3) *Post-construction maintenance of stormwater facilities.* The city manager or his designee shall carry out periodic inspections of public and private stormwater management facilities to ensure compliance with the maintenance requirements of this chapter. If it is determined that proper maintenance is not being carried out in accordance with the approved stormwater management plan, the city manager or his designee is authorized to enforce compliance through the following steps in this order.

(a) *Written notice.* Issue written notice to the owner, specifying the nature and location of the alleged noncompliance, with a description of the remedial actions necessary to bring the stormwater management facility into compliance within a reasonable specified time.

(b) *Stop work order.* If the corrective action identified in the written notice is not completed within the specified time, issue a stop work order directing the applicant or owner to cease and desist all or any portion of the work which violates the provisions of this chapter, if applicable.

(c) If the corrective action identified in the written notice is not completed within the specified time, issue a summons through nuisance abatement. The summons shall set a time frame to complete the corrective action(s). Failure to comply with the summons shall lead to a court hearing before the city court.

(Ord. No. 4253, § 1, 8-15-11)

Sec. 23-16. Penalties for violation.

(1) *General.* Violation of the provisions of this chapter or failure to comply with any of its requirements, including conditions and safeguards established in connection with variances or special use permits, shall constitute a misdemeanor. Any person who violates this chapter or fails to comply with any of its requirements shall upon conviction thereof be fined not more than five hundred dollars ($500.00) or imprisoned for not more than three (3) months, or both, and in addition, shall pay all costs and expenses involved in the case. Each day such violation continues shall be considered a separate offense.

(2) *Corrective actions.* Nothing herein contained shall prevent the City from taking such other lawful action as is necessary to prevent or remedy any violation. All such costs connected therewith shall accrue to the person responsible.

(Ord. No. 4253, § 1, 8-15-11)

Sec. 23-17. Vested rights.

This chapter shall not in any way limit or modify the vested rights of any person to complete any development or improvement to lands based upon prior law, where a previous permit or authorization has been granted or applied for and where such previous permit or authorization remains in effect. The city may acknowledge vested rights in other circumstances where it is equitable and just.

(Ord. No. 4253, § 1, 8-15-11)

Sec. 23-18. Conflict with other ordinances and codes.

In case of conflicts within this chapter or any part thereof, and the whole or part of any other existing or future ordinance or code of the city, the most restrictive in each case shall apply.

(Ord. No. 4253, § 1, 8-15-11)

Sec. 23-19. Other permits.

(1) Before starting any work regulated by this chapter, an applicant shall comply with the requirements set forth in all other applicable ordinances with respect to the submission and approval of preliminary and final subdivision plats, site plans for construction and rezoning improvement plans, and building, grading and zoning permits, along with those set forth in this chapter and as may be required by state statutes and the regulations of any department of the state.

(2) A discharge permit from the State of Missouri shall be obtained individually or under the applicable general permit for any activity regulated under the Department of Natural Resources Clean Water Commission (10 CSR 20) Storm Water.

(Ord. No. 4253, § 1, 8-15-11)

Sec. 23-20. Interpretation.

In the interpretation and application of this chapter, the provisions expressed herein shall be held to be the minimum requirements and shall be liberally construed in favor of the city and shall not be deemed a limitation or repeal of any other powers granted by state statutes.

(Ord. No. 4253, § 1, 8-15-11)

Sec. 23-21. Abrogation and greater restrictions.

It is not intended by this chapter to repeal, abrogate or impair any existing easements, covenants or deed restrictions. However, where this chapter imposes greater restrictions, the provision of this chapter shall prevail.

(Ord. No. 4253, § 1, 8-15-11)

Sec. 23-22. Liability disclaimer.

The performance standards and design criteria set forth herein establish minimum requirements which must be implemented with good engineering practice and workmanship. Use of the requirements contained herein shall not constitute a representation, guarantee, or warranty of any kind by the municipality or its officers and employees of the adequacy or safety of any drainage management structure or use of land. Nor shall the approval of a stormwater management plan and the issuance of a permit imply that land uses permitted will be free from damages caused by stormwater runoff. The degree of protection required by these regulations is considered reasonable for regulatory purposes and is based on historical records, engineering and scientific methods of study. Larger storms may occur or stormwater runoff heights may be increased by manmade or natural causes. Enforcement of these provisions, therefore, shall not create liability on the part of the municipality or any officer of the municipality with respect to any legislative or administrative decision lawfully made hereunder, nor shall compliance relieve an owner, developer, and/or permittee from responsibility under any circumstances where liability would otherwise exist.

(Ord. No. 4253, § 1, 8-15-11)

Sec. 23-23. Final approval required.

(1) Any stormwater management facility for which a permit has been issued as a part of a subdivision improvement plan must be included with as-built drawings and certified to have been constructed accordingly.

(2) Any stormwater management facility for which a permit has been issued individually or as a part of a site development plan must be certified to have been constructed in conformance with the approved drawings prior to issuance of an occupancy permit.

(3) The certification in a. and b. above must be by a professional engineer licensed in Missouri or a CPESC.

(Ord. No. 4253, § 1, 8-15-11)

FOOTNOTE(S):

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Editor's note— *Article 1 of Ord. No. 4253, adopted Aug. 15, 2011, repealed ch. 23 in its entirety and enacted similar provisions to read as herein set out. Former ch. 23 derived from Ord. No. 675, adopted March 6, 1989; Ord. No. 798, adopted Dec. 18, 1989; Ord. No. 1240, adopted Sept. 21, 1992; Ord. No. 2310, adopted Jan. 5, 1998; Ord. No. 2827, adopted Dec. 18, 2000; and Ord. No. 3753, adopted Nov. 6, 2006.* (Back)

Cross reference— *Floodplain management regulations, ch. 12; streets and sidewalks, ch. 24; urban redevelopment, ch. 28; water and sewers, ch. 29; public works department, § 2-54.* (Back)

Chapter 25 Development Code

Cape Girardeau, Missouri, Code of Ordinances >> PART II - CODE OF ORDINANCES >> Chapter 25 DEVELOPMENT CODE >>

Chapter 25 DEVELOPMENT CODE [1]

ARTICLE I. - GENERAL PROVISIONS
ARTICLE II. - OFF-STREET PARKING REGULATIONS
ARTICLE III. - EXTERIOR LIGHTING STANDARDS
ARTICLE IV. - BILLBOARDS
ARTICLE V. - SIGNS
ARTICLE VI. - FENCES
ARTICLE VII. - RETAINING WALLS
ARTICLE VIII. - LANDSCAPING AND BUFFERYARDS
ARTICLE IX. - STREETS
ARTICLE X. - ACCESS MANAGEMENT
ARTICLE XI. - UTILITIES
ARTICLE XII. - SUBDIVISIONS
ARTICLE XIII. - SITE PLANS AND IMPROVEMENT PLANS

FOOTNOTE(S):

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Editor's note— *Article 1 of Ord. No. 4149, adopted Aug. 16, 2010, repealed and reenacted ch. 25 to read as herein set out. Former ch. 25 pertained to subdivision regulations, was comprised of §§ 25-1—25-95, and derived from ch. 25 of the 1967 Code; Ord. No. 661, adopted Feb. 1, 1989; Ord. No. 965, adopted Jan. 16, 1991; Ord. No. 1166, adopted May 18, 1992; Ord. No. 2199, adopted July 21, 1997; Ord. No. 2275, adopted Nov. 17, 1997; Ord. No. 2311, adopted Jan. 5, 1998; Ord. No. 2648, adopted Jan. 3, 2000; Ord. No. 2826, adopted Dec. 18, 2000; Ord. No. 3048, adopted Sept. 16, 2002; Ord. No. 3451, adopted Feb. 22, 2005; and Ord. No. 3618, adopted Feb. 6, 2006.* *(Back)*

Cross reference— *Buildings, ch. 7; floodplain management regulations, ch. 12; health and sanitation, ch. 13; licenses and business regulations, ch. 15; streets and sidewalks, ch. 24; mobile home parks, ch. 27; urban redevelopment, ch. 28; water and sewers, ch. 29; zoning, ch. 30; standards for subdivision proposals under floodplain management regulations, § 12-68; stormwater management system design requirements, § 23-10.* *(Back)*

State Law reference— *Subdivisions and plats, RSMo, § 89.410 et seq., Ch. 445.* *(Back)*

Cape Girardeau, Missouri, Code of Ordinances >> PART II - CODE OF ORDINANCES >> Chapter 25 - DEVELOPMENT CODE >> ARTICLE I. GENERAL PROVISIONS >>

ARTICLE I. GENERAL PROVISIONS

Sec. 25-101. Short title.
Sec. 25-102. Authority.
Sec. 25-103. Jurisdiction.
Sec. 25-104. Purpose.
Sec. 25-105. Relationship to other provisions of the Code.
Sec. 25-106. Relationship to private restrictions.
Sec. 25-107. Prohibitions.
Sec. 25-108. Applicability.
Sec. 25-109. Violations of prior regulations.
Sec. 25-110. Violations.

Sec. 25-111. Penalties for violations.
Sec. 25-112. Enforcement.
Sec. 25-113. Variances and exceptions.
Sec. 25-114. Fees.
Secs. 25-115—25-200. Reserved.

Sec. 25-101. Short title.

This chapter shall be known and may be cited as "The Development Code of the City of Cape Girardeau, Missouri" and may be abbreviated as "DC".

(Ord. No. 4149, art. 2, 8-16-10)

Sec. 25-102. Authority.

By authority of the ordinances of the city council, adopted pursuant to the powers and jurisdictions vested in Article 1 Section 2 and Article 6 Section 19(a) of the Constitution of the State of Missouri and other applicable laws, statutes, ordinances and regulations of the state and the city, the city council adopts these regulations to govern the development of land within the incorporated areas of the city and any areas subject to extra-territorial regulation by the city.

(Ord. No. 4149, art. 2, 8-16-10)

Sec. 25-103. Jurisdiction.

This chapter shall be effective throughout the corporate limits of the city and on property owned by the city outside the corporate limits of the city. Except where otherwise indicated, the provisions of this chapter shall also apply to the city and all of its agencies.

(Ord. No. 4149, art. 2, 8-16-10)

Sec. 25-104. Purpose.

The purpose of this chapter is to regulate and control the development of land and matters relating thereto within the city to promote the public safety, health, and general welfare of the community. The provisions of this chapter are intended to promote:

(a) A strong and positive civic image and identity, based on a high quality living and working environment, an attractive physical setting, safety from fire, flood, crime and other dangers, and responsive city services and programs;

(b) A living environment that supports the local population, is adaptable to market demands for diverse types and styles of residential living, accommodates future growth, and maintains and improves the overall quality and character of the city;

(c) A system of quality retail and commercial development that provides local residents with needed goods and services and enhances the city's tax base;

(d) Quality employment opportunities for all segments of the population;

(e) A balanced transportation system that provides for safe and efficient movement of vehicles and pedestrians;

(f) A balance between the natural and man-made environments that preserve and protect natural features while promoting development and redevelopment;

(g) The protection and preservation of existing properties and values from adverse or nonharmonious adjacent property uses.

(Ord. No. 4149, art. 2, 8-16-10)

Sec. 25-105. Relationship to other provisions of the Code.

(a) *Cross-references.* The use of buildings and land within the city is subject to all other applicable provisions of the City Code as well as this chapter, whether or not the other provisions of the City Code are specifically cross-referenced in this chapter. Cross-references to other provisions of the City Code in this chapter are for the convenience of the reader, and the lack of a cross-reference should not be construed as an indication that other provisions of the City Code do not apply.

(b) *Chapter provides minimum requirements.* In interpreting and applying the provisions of this chapter, each provision shall be construed to be the minimum requirements necessary for the promotion of public health, safety or the general welfare. Whenever this chapter imposes more restrictive standards than are required pursuant to any other statute or local regulation, this chapter shall govern.

(Ord. No. 4149, art. 2, 8-16-10)

Sec. 25-106. Relationship to private restrictions.

The provisions of this chapter are not intended to affect any deed restriction, covenant, easement or any other private agreement relating to, or restricting, the use of land. Where the provisions of this chapter are more restrictive than any private restriction, the requirements of this chapter shall control. Private restrictions shall not be enforced by the city.

(Ord. No. 4149, art. 2, 8-16-10)

Sec. 25-107. Prohibitions.

(a) No building or structure shall be erected, constructed, reconstructed, moved or altered, nor shall any building, structure or land be used for any purpose except in accordance with the provision of this chapter and other relevant provisions of the City Code.

(b) Any person may use, occupy, or sell any land or building or authorize or permit the use, occupancy, or sale of land or buildings except in accordance with all of the applicable provisions of this Development Code.

(Ord. No. 4149, art. 2, 8-16-10)

Sec. 25-108. Applicability.

Those regulations in effect immediately prior to the effective date of this chapter shall be referred to in this chapter as the "previously existing regulations." This chapter shall be referred to either as "these regulations" or the "Development Code."

(Ord. No. 4149, art. 2, 8-16-10)

Sec. 25-109. Violations of prior regulations.

Except as specifically authorized herein, all violations under the previously existing regulations that exist within the city as of the effective date of this chapter, shall continue to be violations and shall not be considered to be legal, nonconforming situations under this chapter. The

city shall have the authority to secure remedies for violations of those regulations to the same extent that it may secure similar remedies for violations of this chapter.

(Ord. No. 4149, art. 2, 8-16-10)

Sec. 25-110. Violations.

If any building or structure is erected, constructed, reconstructed, altered, converted, moved or maintained, or any building, structure, or land is used in violation of this chapter or regulations made under its authority, the city may institute any proper action or proceedings to prevent the unlawful erection, construction, reconstruction, alteration, conversion, moving, maintenance or use; to restrain, correct or abate the violation; to prevent the occupancy or use of the building, structure, or land; or to prevent any illegal act, conduct, business or use in and to the premises.

(Ord. No. 4149, art. 2, 8-16-10)

Sec. 25-111. Penalties for violations.

(a) *Violation; penalty.*

(1) Except as otherwise provided in this section, any person violating the provisions of this chapter is guilty of a misdemeanor and upon conviction thereof shall be fined not less than fifty dollars ($50.00) nor more than five hundred dollars ($500.00) for each and every day that such violation continues, or by imprisonment in the city jail for not more than three (3) months, or by both such fine and imprisonment.

(2) The owner or agent of a building or premises in or upon which a violation of any provision of this chapter has been committed or shall exist, or the lessee or tenant of an entire building or entire premises in or upon which a violation has been committed or shall exist, or the agent, architect, building contractor, or any other person who commits, takes part or assists in any violation or who maintains any building or premises in or upon which such violation shall exist, shall be guilty of a misdemeanor punishable by a fine of not less than fifty dollars ($50.00) and not more than five hundred dollars ($500.00) for each and every day that such violation continues, or by imprisonment in the city jail for not more than three (3) months, or by both such fine and imprisonment.

(3) In addition to the above procedure, the city attorney is also authorized to institute any appropriate action or proceeding to prevent violations of the development code, to restrain, correct, or abate such violations, to prevent the occupancy of buildings, structures, or lands, or to prevent any illegal act, conduct, business, or use in or about such premises. An appropriate action or proceeding shall include, but shall not be limited to, injunctive relief and any other appropriate action at law or in equity.

(Ord. No. 4149, art. 2, 8-16-10; Ord. No. 4282, art. 1, 12-5-11)

Sec. 25-112. Enforcement.

It shall be the duty of the city manager, or his designee, to administer and enforce the regulations contained herein.

(Ord. No. 4149, art. 2, 8-16-10)

Sec. 25-113. Variances and exceptions.

Deviations from and exceptions to the standards and requirements of this chapter may be granted by the planning and zoning commission. Requests for variances from the literal provisions of this chapter may be considered by the planning and zoning commission in instances where strict enforcement of this chapter would cause undue hardship due to circumstances unique to the individual property under consideration. The planning and zoning commission may grant such variances only when it is demonstrated that such action will be in keeping with the spirit and intent of this chapter. The planning and zoning commission must determine that the alleged hardship has not been created by any person presently having an interest in the property, and the particular circumstances involved would result in an undue hardship upon the owner as distinguished from a mere inconvenience if the strict letter of the regulations were carried out. The planning and zoning commission may impose conditions in the granting of the variances to insure compliance and to protect adjacent property.

(Ord. No. 4149, art. 2, 8-16-10; Ord. No. 4234, art. 1, 6-6-11)

Sec. 25-114. Fees.

Reasonable fees sufficient to cover the costs of administration, inspection, publication of notice and similar matters may be charged to applicants for any permits, variances or subdivision fees required in this chapter. The amount of the fees charged shall be established by the city fee schedule, as amended.

(Ord. No. 4149, art. 2, 8-16-10; Ord. No. 4256, art. 1, 8-15-11)

Secs. 25-115—25-200. Reserved.

Cape Girardeau, Missouri, Code of Ordinances >> PART II - CODE OF ORDINANCES >> Chapter 25 - DEVELOPMENT CODE >> ARTICLE II. OFF-STREET PARKING REGULATIONS >>

ARTICLE II. OFF-STREET PARKING REGULATIONS

Sec. 25-201. Applicability.
Sec. 25-202. Parking spaces and aisle design.
Sec. 25-203. Required number of spaces.
Sec. 25-204. Other parking requirements.
Sec. 25-205. Improvement of parking areas.
Sec. 25-206. Landscaping.
Sec. 25-207. Shared parking.
Sec. 25-208. Mixed uses.
Sec. 25-209. Location of facilities.
Sec. 25-210. Bicycle and motorcycle parking.
Sec. 25-211. Off-street loading requirements; off-street loading spaces.
Sec. 25-212. Handicapped parking spaces.
Sec. 25-213. Emergency vehicle access.
Secs. 25-214—25-300. Reserved.

Sec. 25-201. Applicability.

In all zoning districts except the CBD district, all uses established after the effective date of this section shall provide off-street parking solely for the parking of motor vehicles in operating condition of patrons, occupants, or employees in accordance with the following regulations. When an existing structure or use is expanded, or an existing use is changed to a new use, off-street parking shall be provided in accordance with the following regulations for the area or capacity of such expansion. While off-street parking is not required in the CBD zoning district, any off-street parking area provided shall be in conformance with the terms of this article.

(Ord. No. 4149, art. 3, 8-16-10)

Sec. 25-202. Parking spaces and aisle design.

Parking spaces and aisles shall be arranged to accommodate safe circulation of vehicles and pedestrians. No more than twenty (20) percent of the parking spaces required for a use or development shall be allocated to compact car parking. Compact car parking spaces shall be identified upon the site plan and clearly signed in the parking lot. Parking space and aisle dimensions shall comply with the following table:

90° Angle Parking Design	Minimum Dimensions	
	Compact	Standard
Space width	7.5 feet	9.0 feet
Space depth	15.0 feet	19.0 feet
Aisle width		
1-way	22.0 feet	24.0 feet
2-way	24.0 feet	24.0 feet
Total width, aisle and spaces		
1-way	52.0 feet	62.0 feet
2-way	54.0 feet	62.0 feet

45° Angle Parking Design	Minimum Dimensions	
	Compact	Standard
Space width	7.5 feet	9.0 feet
Space depth	16.0 feet	19.0 feet
Aisle width		
1-way	12.0 feet	12.0 feet
2-way	24.0 feet	24.0 feet
Total width, aisle and spaces		
1-way	44.0 feet	50.0 feet
2-way	56.0 feet	62.0 feet

60° Angle Parking Design	Minimum Dimensions	
	Compact	Standard
Space width	7.5 feet	9.0 feet
Space depth	16.5 feet	20.0 feet
Aisle width		
1-way	15.0 feet	18.0 feet

2-way	24.0 feet	24.0 feet
Total width, aisle and spaces		
1-way	48.0 feet	58.0 feet
2-way	57.0 feet	64.0 feet

(Ord. No. 4149, art. 3, 8-16-10)

Sec. 25-203. Required number of spaces.

		Parking Spaces	Stacking Spaces
Residential Uses			
1.	Single-family, townhouse, manufactured homes and two-family dwellings	2 for each dwelling unit	
2.	Multifamily dwellings		
	• Efficiency and one-bedroom dwelling units	1½ for each dwelling unit	
	• Dwelling units with two or more bedrooms	2 for each dwelling unit	
3.	Dormitories, fraternities, sororities and other student housing	2 for each 3 occupants based on the designed capacity of the building	
4.	Hotels	1 for each sleeping room, plus any required for restaurants, bars, meeting rooms, etc.	
Business and Commercial Uses			
5.	Animal hospitals and veterinary clinics	1 for each 300 square feet of total building floor area	
6.	Banks and financial institutions	1 for each 300 square feet of total building area	5 per drive-up window*
7.	Banquet halls	1 for each 2,000 square feet of total building area	
8	Barber shops and beauty parlors	2.5 for each chair	
9	Bars	1 for each 75 square feet of total building floor area, or spaces equal to 35 percent of the capacity in persons, whichever is greater	
10	Bowling alleys	5 for each alley, plus any required for restaurants, bars, etc.	
11	Business or professional offices, except medical and dental offices	1 for each 350 square feet of total building floor area, or 1 for each employee plus 10 percent additional spaces; plus 1 for each vehicle kept on the premises for the business	
12	Cleaning and laundry pick-up stores, tailor and dressmaking shops and shoe repair shops:	1 for each 250 square feet of total building area	4 per drive-up window*
13	Convenience stores:	1 for each 350 square feet of total building floor area, plus 1 for each 2.5 seats of on-site seating, but not less than 10. Service area at	6 per drive-up window*

		gas pumps shall not be counted as parking spaces	
14	Drug stores/pharmacies:	1 for each 200 square feet of total building floor area	5 per drive-up window*
15	Furniture and appliance stores:	1 for each 300 square feet of total building floor area	
16	Hardware and building supply stores:	1 for each 300 square feet of total building floor area	
17	Health/fitness clubs:	1 for each 200 square feet of total building floor area	
18	Medical and dental offices and clinics:	1 for each 250 square feet of total building floor area	
19	Mortuaries and funeral homes:	1 for each 4 seats, plus 1 for each employee	
20.	Motor vehicle, mobile home and trailer sales (new and used):	1 for each 400 square feet of enclosed total building floor area, plus 1 for each 3,000 square feet of open sales lot area	
21	Nursing homes, assisted living and residential treatment facilities and transitional housing	1 for each 4 beds, plus 1 for each employee	
22	Restaurants		
	• With no pick-up or drive-thru service	1 for each 80 square feet of total building floor area, or 1 for each 2.5 seats, whichever is greater	
	• With pick-up or drive-thru service and on-site seating	1 for each 70 square feet of total building floor area but not less than 10	6 per ordering window/3 per pick-up window*
	• With pick-up or drive-thru and no on-site seating	1 for each employee on the largest shift but not less than 6	9 per ordering window/4 per pick-up window*
23	Retail stores (unless listed separately)	1 for each 200 square feet of total building floor area or 1 for each 160 square feet of net usable building floor area, whichever requires less parking spaces	
24	Self-service storage	1 for each 20 storage units without vehicular access plus 1 for each employee and 2 if a resident manager is present, plus 2 additional at the office	
25	Shopping centers (regional)	1 for each 222 square feet of gross leasable area	
26	Supermarkets and grocery stores	1 for each 250 square feet of total building floor area	
27	Theaters	1 for each 4 seats	
28	Vehicle fueling stations	1 for each employee, plus any needed for convenience stores associated with fueling station	Any needed for convenience stores associated with fueling station
29	Vehicle service, repair, body shop	2 for each service bay, plus 1 for each employee	
30	Vehicle washing establishments	1 for each employee	4 for each washing stall
Industrial, Manufacturing and Warehouse Uses			
31	Manufacturing uses and any establishments engaged in production, processing, cleaning, servicing, testing or repair of materials, goods or products	2 for each 3 employees on the largest shift, plus 1 for each vehicle kept on the premises	

32.	Railroad terminals, yards, shops and engine houses	2 for each 3 employees	
33.	Truck terminals	2 for each 3 employees, plus 1 for each truck or semi-trailer kept on the premises	
34.	Warehouse and storage establishments	2 for each 3 employees, plus 1 for each 800 square feet of total building floor area in excess of 4,000 square feet and 1 for each vehicle kept on the premises	
Schools, Institutions and Places of Assembly			
35.	Auditoriums, stadiums, gymnasiums, convention halls, and other places of assembly		
	• With fixed seats	1 for each 4 seats	
	• Without fixed seats	1 for each 3 persons based upon designed maximum capacity	
36.	Churches, temples, and other places of worship	1 for each 4 seats	
37.	Colleges, universities, vocational, trade and business schools	1 for each employee on the largest shift, plus 2 for each 3 commuting students of the largest class attendance period. Parking for dormitories, fraternities, sororities and other living quarters shall be calculated separately	
38.	Daycares		
	• Home	1 for each employee or staff member, plus any required for the residence	
	• Commercial	1 for each employee and staff member, plus 1 for each 5 individuals being cared for	
39.	Elementary and junior high schools	2 for each classroom or 1 for each 5 seats of the largest place of public assembly (stadium, auditorium or gym), whichever requires the greatest number of parking spaces	
40.	High schools, or secondary schools	1 for each 4 students based on the maximum number of students for which the school is designed, plus 2 for each classroom or 1 for each 5 seats of the largest place of public assembly (stadium, auditorium or gym), whichever requires the greatest number of spaces	
41.	Hospitals	2.5 for each 1 bed for inpatient care facilities and 1 for each 250 square feet of total building floor area for outpatient facilities	
42.	Libraries, art galleries, and museums	1 for each 300 square feet of total building floor area	
43.	Parks, playgrounds and athletic fields	1 for each 5,000 square feet of gross land area or one for each 4	

		persons at maximum design capacity, whichever is greater	
44.	Private clubs and lodges	1 for each 3 persons, at maximum design capacity	

* The number of stacking spaces may be reduced by twenty (20) percent for each additional window provided; however, there shall be at least two (2) stacking spaces at each window.

(Ord. No. 4149, art. 3, 8-16-10)

Sec. 25-204. Other parking requirements.

For any and all uses or structures not specifically provided for in the foregoing enumeration, such parking spaces as the city manager shall determine necessary, considering all the parking-generating factors involved, but not less than two (2) spaces.

(Ord. No. 4149, art. 3, 8-16-10)

Sec. 25-205. Improvement of parking areas.

(a) *Grades and drainage.* Parking areas shall be designed to assure positive drainage, but shall not exceed a slope of ten (10) percent; provided that transitional and approach driveways which do not serve directly abutting parking spaces may be designed to a slope of up to fifteen (15) percent, if accompanied by appropriate landing grades and vertical curves at points of transition. Storm drainage control and facilities shall be designed to satisfy the requirements of the storm drainage standards of the city.

(b) *Access.* Ingress and egress shall be only by way of paved driveways or openings as specified in standards contained in article IX, streets. Access driveways shall be free of objects which might interfere with the ability of drivers to see pedestrians and other vehicles.

(c) *Paving, curbs and marking.*

(1) All new and expanded vehicle parking and maneuvering areas in commercial, planned development and multifamily residential zoning districts must be paved with a concrete, asphalt, or permeable/porous pavers or pavement. The use of grass pavers, reinforced gravel, and reinforced turf is allowed and encouraged for use in overflow parking areas, as approved by the city manager. All new and expanded vehicle parking and maneuvering areas in the front yards in manufacturing zoning districts must be paved with a concrete, asphalt or permeable/porous pavers or pavement. New and expanded vehicle parking and maneuvering areas in the rear and side yards in manufacturing zoning districts may be surfaced with a clean aggregate or gravel if dust control measures are in place. The access driveways to all parking areas must be paved with a concrete surface a minimum of seventy-five (75) feet from the property line. Pavement cross-section shall be determined by the owner based on considerations of durability, subsurface conditions, and the type of vehicles using the parking area.

(2) Parked vehicles shall be prevented from intruding on travel lanes, walkways, public streets, or adjacent properties by means of walls, curbs, wheel stops, or other means.

(3) Parking spaces shall be delineated, and appropriate traffic flow indications given, by use of reflectorized paint on the parking area pavement.

(4) All paving, curbs and markings shall be continuously maintained in good condition, to the above standards, after installation.

(d) *Lighting.* Lights shall be required for all parking areas intended for night use. Lights shall be arranged or shielded to direct illumination away from residences and from public streets and other public areas and meet the requirements of article III, exterior lighting standards.

(Ord. No. 4149, art. 3, 8-16-10)

Sec. 25-206. Landscaping.

All parking facilities shall comply with article VIII, landscaping and bufferyards.

(Ord. No. 4149, art. 3, 8-16-10)

Sec. 25-207. Shared parking.

Upon application of the owners, facilities may be shared if multiple uses cooperatively establish and operate parking facilities and if these uses generate parking demands at different times. (For example, if one (1) use operates during evenings and weekends only and other uses operate during weekdays only). The applicant shall have the burden of proof for a reduction in the total number of required parking spaces, and shall provide required documentation. A shared parking arrangement shall be approved by the city manager only if:

(a) A sufficient number of spaces are provided to meet the greater parking demand of the particular uses.

(b) Satisfactory evidence has been submitted by the parties operating the shared parking facility, describing the nature of the uses and times when the uses operate so as to demonstrate the lack of conflict between them.

(c) Additional documents, covenants, deed restrictions, or other agreements as may be deemed necessary by the city manager are executed to assure that the required parking spaces provided are maintained and uses with similar hours and parking requirements as those uses sharing the parking remain for the life of the building.

(Ord. No. 4149, art. 3, 8-16-10)

Sec. 25-208. Mixed uses.

Generally, in mixed uses, the parking facilities required shall be the sum of the requirements for the various individual uses, computed separately in accordance with this section. Parking facilities for one (1) use shall not be considered as providing the required parking facilities for any other use, except as approved in section 25-207 above.

(Ord. No. 4149, art. 3, 8-16-10)

Sec. 25-209. Location of facilities.

(a) No parking shall be permitted for non-residential uses within ten (10) feet of an adjoining lot in a residential district, except as otherwise provided by this chapter.

(b) Parking areas for any RE, R-1, R-2, or R-3 district shall only be located upon a driveway providing access to a garage, carport or parking area for a dwelling unit except that a side turnaround space shall be permitted in the required front yard where the dwelling unit has its only access to a street designated as an arterial street. Such side turnaround space shall

have an all-weather surface, shall be limited to ten (10) feet in width and twenty (20) feet in length, and shall be connected to the driveway.

(c) Except as otherwise provided in this section, off-street vehicle parking facilities required by this section for all uses except residential may be located either on-premises or within five hundred (500) feet therefrom on appropriately zoned property.

(Ord. No. 4149, art. 3, 8-16-10)

Sec. 25-210. Bicycle and motorcycle parking.

(a) Bicycle and motorcycle parking reduction allowance. Up to ten (10) percent of required vehicle parking may be substituted with bicycle or motorcycle parking at a rate of two (2) bicycle or motorcycle spaces for each required vehicle space. The reduction allowance is applicable only to parking lots that contain at least ten (10) or more vehicle parking spaces and to the following uses: office, manufacturing, regional shopping centers, colleges and universities, medical centers, and health and fitness centers.

(b) Bicycle parking facilities shall be equipped with either a lockable enclosure (bicycle locker) or a permanent, secure, and stationary structure (bicycle rack) that supports the bicycle frame and to which the frame and both bicycle wheels can be locked (with the removal of the front wheel) or where the frame and one (1) wheel can be locked (if both wheels remain on the bicycle). Each bicycle parking space shall be at least six (6) feet long, two (2) feet wide and shall have a minimum overhead clearance of seven (7) feet. If more than one (1) bicycle rack is used, an access aisle five (5) feet wide at a minimum is required beside or between each row of bicycle racks.

(c) Each motorcycle parking space shall be at least eight (8) feet long, five (5) feet wide and shall have a minimum overhead clearance of seven (7) feet.

(d) Bicycle and motorcycle parking facilities shall be surfaced with all-weather material and maintained in a safe and neat condition. Bicycle and motorcycle parking facilities shall be clearly designated, safely separated from vehicle maneuvering areas, and located near the main and employee entrances to the principle use. Bicycle and motorcycle parking facilities in parking structures shall be located on the ground level.

(Ord. No. 4149, art. 3, 8-16-10)

Sec. 25-211. Off-street loading requirements; off-street loading spaces.

There shall be provided at the time any building is erected or structurally altered (except as otherwise provided in this section), off-street loading spaces in accordance with the following requirements:

Number and size of loading spaces. Loading spaces, a minimum size of ten (10) feet wide by twenty (20) feet long with a minimum vertical clearance of ten (10) feet, shall be provided for new buildings and uses and expansions or modifications of existing uses as shown in the following table:

Floor Area in Square Feet	Minimum Number of Loading Spaces
Office, hotel, institutional, or nursing home	
5,000 to 50,000	1
50,001 to 200,000	2

For each additional 75,000	1
Retail, service, wholesale commercial uses	
2,000 to 20,000	1
20,001 to 100,000	2
For each additional 100,000	1
Industrial and manufacturing uses	
1,000 to 10,000	1
For each additional 8,000	1

(Ord. No. 4149, art. 3, 8-16-10)

Sec. 25-212. Handicapped parking spaces.

Handicapped parking spaces shall be provided in accordance with the American National Standard "Accessible and Usable Buildings and Facilities" manual and the International Building Code currently in effect.

(Ord. No. 4149, art. 3, 8-16-10)

Sec. 25-213. Emergency vehicle access.

Emergency vehicle access shall be provided in accordance with the International Fire Code currently in effect.

(Ord. No. 4149, art. 3, 8-16-10)

Secs. 25-214—25-300. Reserved.

ARTICLE III. EXTERIOR LIGHTING STANDARDS

Sec. 25-301. Purpose.
Sec. 25-302. Exterior lighting objective.
Sec. 25-303. Exterior lighting standards.
Sec. 25-304. Existing lighting.
Sec. 25-305. Exemptions.
Secs. 25-306—25-400. Reserved.

Sec. 25-301. Purpose.

The purpose of this section is to regulate the placement and arrangement of exterior lighting. These regulations are intended to: protect the public health, safety, and general welfare; enable the fair and consistent enforcement of these regulations; control light spillover and glare; encourage lighting systems which conserve energy and costs; preserve community character; and provide for nighttime safety, utility, security, and productivity.

(Ord. No. 4149, art. 5, 8-16-10)

Sec. 25-302. Exterior lighting objective.

Lighting arrangements shall be arranged in the following manner:

(a) To minimize light spillover onto any adjacent premises; and

(b) So that light from any illuminated source be so shaded, shielded or directed that the light intensity or brightness will not adversely affect adjoining property.

(Ord. No. 4149, art. 5, 8-16-10)

Sec. 25-303. Exterior lighting standards.

All exterior lighting upon any premises, regardless of zoning classification, shall be subject to the following conditions and limitation:

(a) When a light source or luminaire does not have a cutoff the following standards shall be met:

(1) Maximum mounting or pole height of the light source or luminaire: Fifteen (15) feet.

(2) Maximum permitted lumination:

a. Three-tenths (0.3) footcandle at any point along the perimeter of the property where it adjoins a residential zoning district or is separated from a residential zoning district by a right-of-way of seventy (70) feet or less.

b. One (1.0) footcandle at any other point along the perimeter of the property.

(b) When a light source or luminaire has total cutoff of light at an angle so that the bare bulb, lamp, or light source is completely and opaquely shielded from the direct view of an observer at ground level at the perimeter of the property, the following standard shall be met:

(1) Maximum mounting or pole height of the light source or luminaire: Sixty (60) feet.

(2) Maximum permitted lumination:

a. One-half (0.5) footcandle at the any point along the perimeter of the property where it adjoins a residential zoning district or is separated from a residential zoning district by a right-of-way seventy (70) feet or less.

b. One (1.0) footcandle at any other point along the perimeter of the property.

(c) Building and landscape light fixtures, including ground lighting for signs, flag poles, and statues, shall be equipped with shields or shutters to minimize spillover. The maximum permitted lumination as a result of reflected light resulting from such fixtures shall be:

(1) One-half (0.5) footcandle at any point along the perimeter of the property where it adjoins a residential zoning district or is separated from a residential zoning district by a right-of-way of seventy (70) feet or less; and

(2) One (1.0) footcandle at any other point along the perimeter of the property.

(d) The maximum permitted average illumination of all parking lots shall be five (5) footcandles.

(e) There shall be no lighting of a blinking, flashing, rotating or fluttering nature, including changes in light intensity, brightness, or color except for public safety purposes.

(f) Light sources or luminaries shall not be located within bufferyard areas except on pedestrian walkways.

(g) A site lighting plan for uses requiring site plan review shall be submitted and shall provide the following information:

(1) Proposed location on premises of all exterior light fixtures.

(2) Description of illumination devices, fixtures, lamps, supports, reflectors, and lens, mounting height and wattage.

(3) Photometric design layout for the site of all illuminated vertical and horizontal surfaces showing the design footcandle levels.

(4) For uses requiring site plan review, lighting shall be significantly reduced during nonoperational building hours, allowing only lighting necessary for security purposes. The lighting plan submitted for review shall note where this distinction occurs.

(Ord. No. 4149, art. 5, 8-16-10)

Sec. 25-304. Existing lighting.

At such time that at least thirty (30) percent of a property's existing lighting fixtures are moved or replaced, the requirements of this section shall be met.

(Ord. No. 4149, art. 5, 8-16-10)

Sec. 25-305. Exemptions.

(a) *Outdoor recreational use.* Because of their unique requirements for nighttime visibility and their limited hours of operation, ball diamonds, playing fields, and tennis courts shall be exempt from the exterior lighting standards of section 25-303 above. These outdoor recreational uses must meet all other requirements of this section and of this chapter.

(b) *Private outdoor lights.* Private outdoor lights installed by a public utility on private property for security purposes are exempt from the exterior lighting standards above, provided the installation is approved by all property owners of residential property from which the light source can be viewed directly.

(c) *Public street lighting.* Street lights shall be exempt from the exterior lighting standards above.

(d) *Emergency warning lights.* Safety signals and warning device lighting shall be exempt from the exterior lighting standards above.

(e) *Temporary seasonal/holiday lighting.* Temporary seasonal/holiday lighting is exempt from the exterior lighting standards above.

(f) *Search lights.* Search lights for promotional purposes and special events shall be exempt from the exterior lighting standards above, provided the lights are not located in a residential zoning district and the lights are directed so that they do not illuminate any structure that is not located on the same property as the lights.

(Ord. No. 4149, art. 5, 8-16-10)

Secs. 25-306—25-400. Reserved.

ARTICLE IV. BILLBOARDS

Sec. 25-401. Billboards.
Secs. 25-402—25-500. Reserved.

Sec. 25-401. Billboards.

Billboards shall be erected only upon approval of a special use permit, as set out in chapter 30, section 30-401. In addition to the requirements of section 30-401, the following regulations apply to the erection of billboards:

(a) Billboards shall be allowed only in the C-2, PD, M-1 and M-2 zoning districts.

(b) Billboards shall be allowed only on parcels of land bordering the following streets:
  (1) Interstate 55.
  (2) William Street (Route K), west of Kingshighway.
  (3) Missouri Route 74, west of Kingshighway.
  (4) Kingshighway from Boulder Crest Drive south to Interstate 55.

(c) No billboard shall be placed within fourteen hundred (1,400) feet of another billboard. This paragraph shall not apply to billboards which are located on opposite sides of the street to which the billboard is oriented.

(d) No billboard shall be placed within thirty (30) feet of a street right-of-way.

(e) No billboard shall be placed within one hundred (100) feet of a property line of a property which is used for residential purposes.

(f) For purposes of placing billboards, a V-shaped billboard or a back-to-back type of billboard shall be considered one (1) billboard. Sign faces of less than one hundred fifty (150) square feet may be placed between billboard faces at the apex of the "V" or across the rear of the "V," but no such sign shall be oriented toward a street upon which billboards are not allowed. The angle of all sign faces shall be oriented so that they are between seventy-five (75) degrees and ninety (90) degrees to the street on which the billboard is permitted.

(g) No billboard shall be located in such a manner as to obscure an official traffic sign, signal or device, or obstruct a driver's view of approaching or intersection traffic.

(h) The maximum area of a billboard sign face shall be three hundred (300) square feet. The maximum length of a billboard sign face shall be thirty (30) feet. The maximum total sign face area of a billboard shall be six hundred (600) square feet.

(i) There shall be a minimum clearance of ten (10) feet from grade of the street to which the billboard is oriented to the bottom of a billboard sign face. There shall be a maximum height of thirty (30) feet from grade of the street to which the billboard is oriented to the top of a billboard sign face.

(j) Audio speakers are prohibited in association with any billboard.

(k) Electronic, video or digital billboard images or any portion thereof shall have a minimum duration of at least eight (8) seconds and shall be a static display. No

portion of the image may flash, scroll, twirl, change color, or in any manner imitate movement.

(l) Billboards may be illuminated, subject to the following instructions:

(1) No revolving or rotating beam or beacon of light shall be permitted as part of any billboard. Flashing devices shall not be permitted upon a billboard. However, changeable copy signs, such as those used for time and temperature displays, shall be permitted, but shall not be permitted to operate in a flashing or scrolling manner.

(2) External lighting, such as flood lights, thin line and gooseneck reflectors, are permitted, provided the light source is directed on the face of the billboard and is effectively shielded so as to prevent beams or rays of light from being directed into any portion of the street.

(3) The illumination of any billboard within one hundred (100) feet of a property line which is used for residential purposes shall be diffused or indirect in design to prevent direct rays of light from shining into adjoining residential districts.

(4) Electronic, video or digital billboard images shall be equipped with automatic dimming capability that adjusts the brightness to the ambient light at all times of the day and night. The maximum luminance produced by electronic, video or digital billboard images shall not exceed three-tenths (0.3) footcandle greater than the ambient light level.

(m) The following billboards shall not be permitted to remain or to be erected:

(1) Billboards which have been erected without a building permit.

(2) Billboards that employ any stereopticon or motion picture projection, or any portion of which gives the illumination of motion. This includes any electronic graphic signs or video displays, but does not include signs that contain changeable copy, such as time and temperature.

(3) Billboards which are not clean, not in good repair, not structurally sound, or obsolete (billboards shall not be considered obsolete solely because they temporarily do not carry an advertising message).

(4) Billboards which appear to attempt to regulate, warn, or direct the movement of traffic or which interfere with, imitate, or resemble any official traffic sign, signal or device.

(5) Billboards which are erected or maintained upon trees or painted or drawn upon rocks or other natural features.

(6) Billboards which are nonconforming and damaged or destroyed to an extent of more than sixty (60) percent of the replacement cost.

(7) Billboards that prevent ingress or egress from any doors, windows, or fire escapes.

(8) Billboards that are attached to a standpipe or fire escape.

(Ord. No. 4178, art. 1, 12-6-10)

Secs. 25-402—25-500. Reserved.

ARTICLE V. SIGNS

Sec. 25-501. Purpose.
Sec. 25-502. Definitions.
Sec. 25-503. General sign types.
Sec. 25-504. General provisions.
Sec. 25-505. Permits required.
Sec. 25-506. Specific sign requirements.
Secs. 25-507—25-600. Reserved.

Sec. 25-501. Purpose.

The purpose of this section is to protect the safety and orderly development of the community through the regulation of signs and sign structures.

(Ord. No. 4178, art. 2, 12-6-10)

Sec. 25-502. Definitions.

The following works and terms shall, for the purposes of this section, have the meanings shown herein:

Abandoned sign. Any sign and/or its supporting sign structure which remains without a message or whose display surface remains blank for a period of one (1) year or more, or any sign which pertains to a time, event or purpose which no longer applies, shall be deemed to have been abandoned. Permanent signs applicable to a business temporarily suspended because of a change in ownership or management of such business shall not be deemed abandoned unless the property remains vacant for a period of one (1) year or more. Any sign remaining one (1) year after demolition of a principal structure shall be deemed to be abandoned. Signs which are present because of being legally established nonconforming signs or signs which have required a special use permit or a variance shall also be considered as an abandoned sign.

A-frame sign. A portable sign where the two (2) sign faces are attached at the top in a hinged fashion to allow the bottom portion of the two (2) faces to spread apart and rest on the ground to support the sign.

Architectural projection. Any projection that is not intended for occupancy and that extends beyond the face of an exterior wall of a building, but that does not include signs as defined herein.

Awning sign. A sign displayed on or attached flat against an architectural projection or shelter projecting from and supported by the exterior wall of a building and composed of a covering of rigid or nonrigid materials and/or fabric on a supporting framework that may be either permanent or retractable, including such structures that are internally illuminated by fluorescent or other light sources.

Banner sign. A sign utilizing a flexible material on which copy or graphics are displayed.

Billboard. See article IV.

Building elevation. The entire side of a building, from ground level to the roofline, as viewed perpendicular to the walls on that side of the building.

Canopy sign. A sign affixed to the visible surface(s) of a multisided overhead structure or architectural projection supported by columns but not enclosed by walls.

Copy. Those letters, numerals, figures, symbols, logos and graphic elements comprising the content or message of a sign, excluding numerals identifying a street address only.

Development complex sign. A freestanding sign identifying a multiple-occupancy development, which is controlled by a single owner or landlord, approved in accordance with section 25-506(i) of this chapter.

Directional sign. Any sign that is designed and erected for the purpose of providing direction and/or orientation for pedestrian or vehicular traffic.

Electronic, video, or digital message sign. A sign capable of displaying words, symbols, figures or images that can be electronically or mechanically changed by remote or automatic means. These signs include, but are not limited to, displays using incandescent lamps, light emitting diodes (LEDs), or liquid crystal displays (LCDs).

Double-faced sign. A sign with two (2) faces, back to back.

Facade. See *Building elevation.*

Freestanding sign. A sign principally supported by a structure affixed to the ground, and not supported by a building, including signs supported by one (1) or more columns, poles or braces placed in or upon the ground.

Frontage (building). The length of an exterior building wall or structure of a single premises oriented to the public way or other properties that it faces.

Frontage (property). The length of the property line(s) of any single premises along either a public way or other properties on which it borders.

Garage sale. Any sale conducted where used or unwanted household items are offered for sale, usually held in the garage, carport or driveway of the seller's home. Also commonly referred to as "yard sales".

Interior sign. Any sign placed within a building, including in a window. Interior signs are not regulated by this chapter.

Menu board. A freestanding sign oriented to the drive-through lane for a restaurant that advertises the menu items available from the drive-through window, and which has no more than twenty (20) percent of the total area for such a sign utilized for business identification, and which is not regulated by this chapter.

Monument sign. A freestanding sign that is above ground level and is anchored to the ground by a solid base, with no open space between the sign and the ground. Such signs may be two-sided, provided that both sides cannot be seen simultaneously from any point.

Off-premises sign. See *Outdoor advertising sign.*

Off-site directional sign. A sign structure which provides directional assistance to access nonresidential uses conveniently and safely. Such signs shall be limited in area, size, number, height, and placement as identified in section 25-506(i)(2).

On-premises sign. A permanent sign erected, maintained or used in the outdoor environment for the purpose of the display of messages appurtenant to the use of, products sold on, or the sale or lease of, the property on which it is displayed.

Outdoor advertising sign. A permanent sign erected, maintained or used in the outdoor environment for the purpose of the display of messages not appurtenant to the use of, products sold on, or the sale or lease of, the property on which it is displayed.

Portable sign. Any sign not embedded in the ground or permanently affixed to a building or sign structure that is permanently embedded in the ground. Portable signs are considered to be temporary signs.

Projecting sign. A sign other than a wall sign that is attached to or projects more than eighteen (18) inches from a building face or wall or from a structure whose primary purpose is other than the support of a sign.

Real estate sign. A temporary sign advertising the sale, lease or rental of the property or premises upon which it is located.

Roof line. The top edge of a peaked roof or, in the case of an extended facade or parapet, the uppermost point of said facade or parapet.

Roof sign. A sign mounted on, and supported by, the main roof portion of a building, or above the uppermost edge of a parapet wall of a building and which is wholly or partially supported by such a building. Signs mounted on mansard facades, pent eaves and architectural projections such as canopies or marquees shall not be considered to be roof signs.

Sign. Any device visible from a public place that displays either commercial or noncommercial messages by means of graphic presentation of alphabetic or pictorial symbols or representations. Noncommercial flags or any flags displayed from flagpoles or staffs will not be considered to be signs.

Sign area. The area of the sign face. The area of any double-sided or "V" shaped sign shall be the area of the largest single face only. The area of a sphere shall be computed as the area of a circle. The area of all other multiple-sided signs shall be computed as fifty (50) percent of the sum of the area of all faces of the sign.

Sign face. The surface upon, against or through which the sign copy is displayed or illustrated, not including structural supports or architectural features of a building or sign structure.

Temporary sign. A sign intended to display messages of a transitory or temporary nature.

V-shape sign. Signs containing two (2) faces of approximately equal size, erected upon common or separate structures, positioned in a "V" shape with an interior angle between faces of not more than ninety (90) degrees with the distance between the sign faces not exceeding five (5) feet at their closest point.

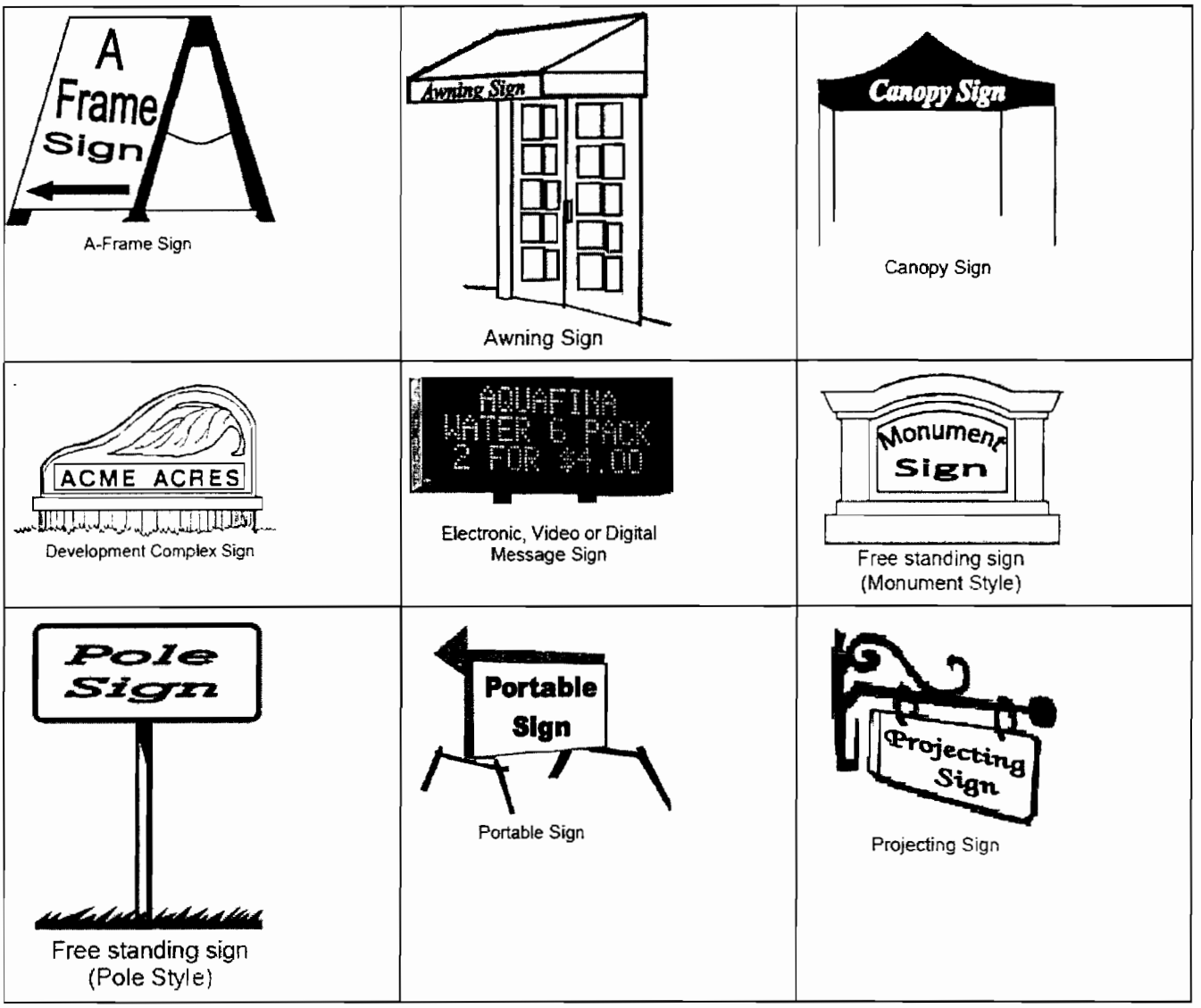
Wall or fascia sign. A sign that is in any manner affixed to any exterior wall of a building or structure and that projects not more than eighteen (18) inches from the building or structure wall.

(Ord. No. 4178, art. 2, 12-6-10)

Sec. 25-503. General sign types.

Sign types and the computation of sign area shall be as depicted in Figures 1 through 2.

Figure 1 - General Sign Types



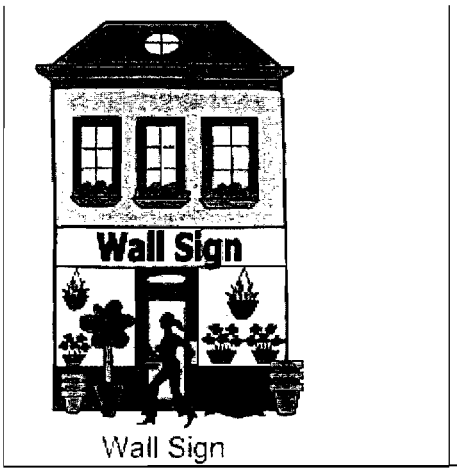
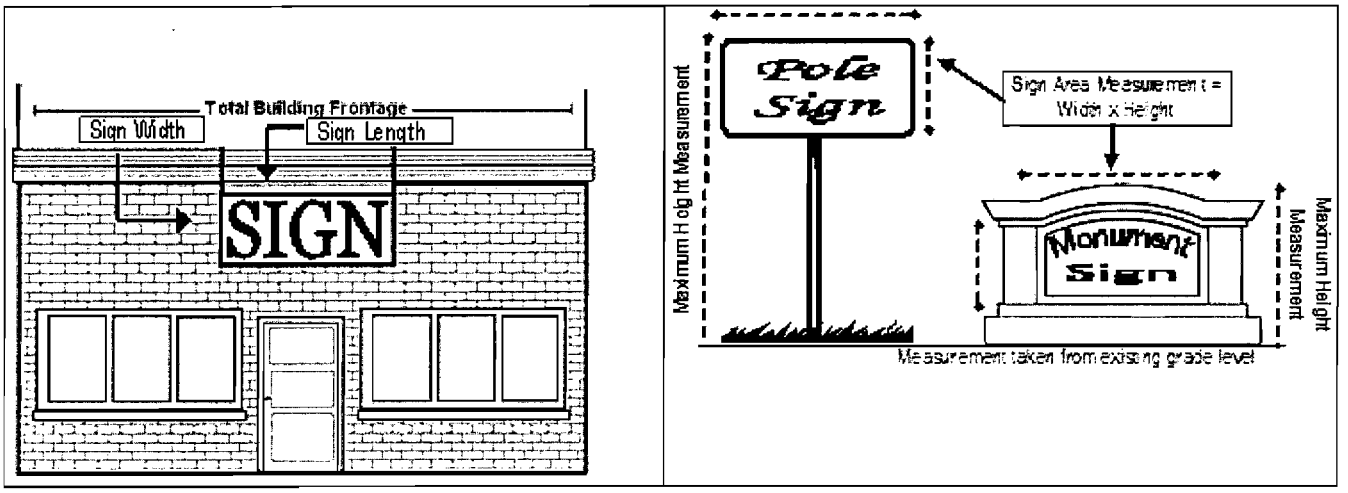
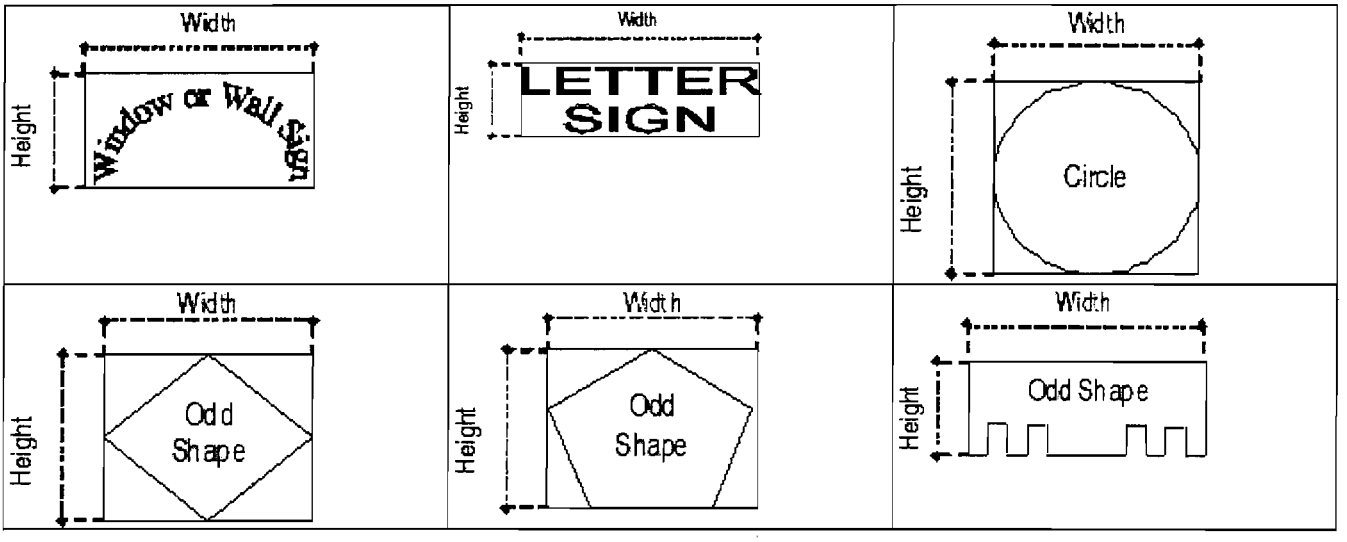


Figure 2 - Height and Area Computation Methodology





(Ord. No. 4178, art. 2, 12-6-10)

Sec. 25-504. General provisions.

(a) *Conformance of codes.* Any sign hereafter erected shall conform to the provisions of this article and the provisions of the International Building Code and of any other ordinance or regulations within this city.

(b) *Signs in rights-of-way.* No sign other than an official traffic sign shall be placed within any public right-of-way, unless specifically authorized by other ordinances or regulations of the city. Signs placed in the right-of-way shall be subject to removal.

(c) *Projections over public ways.* Signs projecting over public walkways shall be permitted to do so only subject to the projection and clearance limits either defined herein or, if not so defined, at a minimum height of ten (10) feet from grade level to the bottom of the sign. Signs, architectural projections or sign structures projecting over vehicular access areas must conform to the minimum height clearance limitations imposed by the city for such structures.

(d) *Traffic visibility.* No sign or sign structure shall be erected within thirty (30) feet of the paved portion of the intersection of any street or in such a manner as to obstruct free and clear vision, nor at any location where by its position, shape or color it may interfere with or obstruct the view of or be confused with any authorized traffic sign, signal or device.

(e) *On-premises.* Signs that advertise goods or services not located on the same premises as the sign are not allowed, except as authorized elsewhere in this article.

(f) *Computation of frontage.* If a premises contains walls facing more than one (1) property line or encompasses property frontage bounded by more than one (1) street or other property usages, the sign area(s) for each building wall or property frontage will be computed separately for each building wall or property line facing a different frontage. The sign area(s) thus calculated shall be permitted to then be applied to permitted signs placed on each separate wall or property line frontage.

(g) *Maintenance, repair and removal.* Every sign permitted by this ordinance shall be kept in good condition and repair. When any sign becomes insecure, in danger of falling or is otherwise deemed unsafe by the code official, or if any sign shall be unlawfully installed, erected or maintained in violation of any of the provisions of this article, the owner thereof or the person or firm using same shall, upon written notice by the code official forthwith in the case of immediate danger, and in any other case within not more than ten (10) days, make such sign conform to the provisions of this article, or shall remove it. If within ten (10) days the order is not complied with, the code official shall be permitted to remove or cause such sign to be removed at the expense of the owner and/or the user of the sign.

(h) *Obsolete sign copy.* Any sign copy that no longer advertises or identifies a commercial use conducted on the property on which said sign is erected must have the sign copy covered or removed within thirty (30) days after written notification from the code official; and upon failure to comply with such notice, the code official is hereby authorized to cause removal of such sign copy, and any expense incident thereto shall be paid by the owner of the building, structure or ground on which the sign is located.

(i) *Abandoned sign.* Any sign structure that has no message or no sign face for a continuous period of one (1) year or more, or for which has advertisement that no longer applies shall be considered an abandoned sign. The sign shall be removed within thirty (30) days after written notification from the code official; and upon failure to comply with such notice, the code official is hereby authorized to cause removal of such sign, and any expense incident

thereto shall be paid by the owner of the building, structure or ground on which the sign is located.

(j) *Placement.* If any sign is found to be in violation of any provision of this section and the identity of the individual placing the sign at that location cannot be determined, the owner of the business or property that is advertised on the sign shall be held prima facie responsible for such violation.

(k) *Nonconforming signs.* Any permanent sign legally existing at the time of the passage of this ordinance that does not conform in location, height or size with the regulations of the zone in which such sign is located, shall be considered a legal nonconforming use or structure and shall be permitted to continue in such status until such time as it is either abandoned or removed by its owner, subject to the following limitations:

(1) Structural alterations, enlargement or re-erection are permissible only where such alterations will not increase the degree of nonconformity of the signs.

(2) Any legal nonconforming sign shall be removed or rebuilt without increasing the existing height or area if it is damaged, or removed if allowed to deteriorate to the extent that the cost of repair or restoration exceeds fifty (50) percent of the replacement cost of the sign as determined by the code official.

(Ord. No. 4178, art. 2, 12-6-10)

Sec. 25-505. Permits required.

Unless specifically exempted, a permit must be obtained from the code official for the erection and maintenance of all signs erected or maintained within this city. Exemptions from the necessity of securing a permit, however, shall not be construed to relieve the owner of the sign involved from responsibility for its erection and maintenance in a safe manner and in a manner in accordance with all the other provisions of this article.

(a) *Construction documents.* Before any permit is granted for the erection of a sign or sign structure requiring such permit, construction documents shall be filed with the code official showing the dimensions, materials and required details of construction, including loads, stresses, anchorage and any other pertinent data. The permit application shall be accompanied by the written consent of the owner or lessee of the premises upon which the sign is to be erected and by engineering calculations signed and sealed by a registered design professional where required by the International Building Code.

(b) *Changes to signs.* No sign shall be structurally altered, enlarged or relocated except in conformity to the provisions herein, nor until a proper permit, if required, has been secured. The changing or maintenance of moveable parts or components of an approved sign that is designed for such changes, or the changing of copy, business names, lettering, sign faces, colors, display and/or graphic matter, or the content of any sign shall not be deemed a structural alteration.

(c) *Permit fees.* Permit fees to erect, alter or relocate a sign shall be in accordance with the fee schedule adopted within this city.

(Ord. No. 4178, art. 2, 12-6-10)

Sec. 25-506. Specific sign requirements.

(a) *Wall signs.* Every multifamily residential complex, commercial or manufacturing building, and every separate nonresidential building in a residential zone may display wall signs per street

frontage subject to the limiting standards set forth in Table 1. For shopping centers or other multiple occupancy nonresidential buildings, the building face or wall shall be calculated separately for each separate occupancy, but in no event will the allowed area for any separate occupancy be less than fifty (50) square feet.

TABLE 1
STANDARDS FOR WALL SIGNS

Land Use/Zoning District	Maximum Area (square feet)
Multifamily residential	5 (name plate only)
Nonresidential in a residential zone commercial and manufacturing	3 per lineal foot of building or tenant space fronting street

(b) *Freestanding signs.* In addition to any allowable wall signs, every single-family residential subdivision, multifamily residential complex, commercial or manufacturing building, and every separate nonresidential building in a residential zone shall be permitted to display freestanding signs per street frontage subject to the limiting standards set forth in Table 2.

(1) For subdivision, mobile home park or apartment identification signs placed on a decorative entry wall approved by the code official, two (2) identification signs shall be permitted to be placed at each entrance to the subdivision or apartment complex, one (1) on each side of the driveway or entry drive.

(2) Bed and breakfast inns or hostels are allowed one (1) freestanding yard sign not greater than twelve (12) square feet and displaying only the name of the facility.

TABLE 2
STANDARDS FOR FREESTANDING SIGNS

Land Use/ Zoning District	Maximum Number of Signs	Maximum Height (feet)	Maximum Area (square feet)
RE, R-1, R-2, R-3, R-4, R-5 & RMH districts	2 per arterial street entrance	5	40
NC, nonresidential uses in residential zones, AG, AG-1	1 monument type sign per street front, constructed with same building material as main building	12	1 square foot per 1 LF frontage up to 120 square feet
C-1, C-2, CBD, PD, M-1, and M-2 (except in locations identified below)	1 per street front	35	1 square foot per 1 LF frontage up to 150 square feet
C-1, C-2, CBD, PD, M-1 and M-2 located on Kingshighway, Southern Expressway and MO Route 74 (Shawnee Parkway)	1 per street front	40	1.5 square feet per 1 LF frontage up to 150 square feet
C-1, C-2, PD, M-1 and M-2 located on Interstate 55	1 per street front	60	2.5 square feet per 1 LF frontage up to 150 square feet
A-1 district (airport)	As approved by airport manager		

(c) *Canopy and marquee signs.*

(1) The permanently-affixed copy area of canopy or marquee signs shall not exceed an area equal to twenty-five (25) percent of the face area of the canopy, marquee or architectural projection upon which such sign is affixed or applied.

(2) Graphic striping, patterns or color bands on the face of a building, canopy, marquee or architectural projection shall not be included in the computation of sign copy area.

(d) *Awning signs.*

(1) The copy area of awning signs shall not exceed an area equal to twenty-five (25) percent of the background area of the awning or awning surface to which such a sign is affixed or applied, or the permitted area for wall or fascia signs, whichever is less.

(2) Neither the background color of an awning, nor any graphic treatment or embellishment thereto such as striping, patterns or valances, shall be included in the computation of sign copy area.

(e) *Projecting signs.*

(1) Projecting signs shall be permitted in lieu of freestanding signage on any street frontage. Projecting signs shall be limited to one (1) sign per occupancy along any street frontage with public entrance to such an occupancy, and shall be further limited in height and area to three (3) square feet per each one (1) lineal foot of building frontage, except that no such sign shall exceed an area of one hundred fifty (150) square feet.

(2) No such sign shall extend vertically above the highest point of the building facade upon which it is mounted by more than three (3) feet.

(3) Such signs shall not extend over a public sidewalk in excess of fifty (50) percent of the width of the sidewalk.

(4) Such signs shall maintain a clear vertical distance above any public sidewalk a minimum of ten (10) feet.

(f) *Roof signs.*

(1) Roof signs shall be permitted in commercial, planned development, and manufacturing districts only.

(2) Such signs shall not extend above the roofline.

(3) The sign area for roof signs shall be assessed against the maximum permitted area for wall signs on the elevation of the building most closely parallel to the face of the sign.

(g) *Electronic, video, or digital message signs.*

(1) The maximum size of the electronic, video, or digital message portion of signs in the CBD, C-1, C-2, PD, M-1 or M-2 zoning districts shall not exceed fifty (50) square feet.

(2) The maximum size of the electronic, video, or digital message portion of signs in the NC district or on the premises of any nonresidential use in any residential district shall not exceed thirty-two (32) square feet.

(3) Electronic, video, or digital message signs in an NC district or on the premises of any nonresidential use in any residential district shall be turned off no later than 10:00 p.m. and not turned on before 7:00 a.m.

(4) Flashing of messages or images is prohibited.

(5) Animation, defined as the illusion of motion, is allowed unless the city manager determines that the animation constitutes a distraction to traffic. Animation, or a sequence of animations shall not exceed eight (8) seconds in length, followed by a transition of a minimum of one and one-half (1.5) seconds or a blank (black) slide of one-half (0.5) second.

(6) Static messages or images shall remain constant for a minimum of one and one-half (1.5) seconds.

(7) Scrolling messages are allowed, but shall not exceed eight (8) seconds in length.

(8) A minimum of one and one-half (1.5) seconds of transition or a blank slide of a minimum of one-half (0.5) second must appear after each eight (8) seconds of any type of animation, messages or images. Transitions may not involve flashing.

(9) Movies or videos involving live actors or events are not allowed.

(10) Automatic dimming capability that adjusts the brightness of the sign to the ambient light at all times of the day and night is required. The maximum illuminance produced by the sign shall not exceed three-tenths (0.3) footcandle greater than the ambient light level.

(h) *A-frame signs.* A-frame signs are allowed in all commercial, planned development, and manufacturing districts, based on the following criteria:

(1) Such signs are limited to eight (8) square feet per sign face with not more than two (2) sign faces.

(2) The overall size of the sign shall not exceed thirty (30) inches in width and forty-eight (48) inches in height.

(3) Such signs may not be internally illuminated.

(4) Such signs may be placed only on the sidewalk in front of the place of business it advertises and must allow a three-foot wide space on the sidewalk for pedestrians to pass.

(5) Such signs shall be removed from the sidewalk and placed inside the business at the close of each business day and/or whenever the business ceases to be open.

(6) Such signs shall be secured in a fashion to prevent them from blowing over or falling over.

(i) *Signs for development complexes.*

(1) *Master sign plan required.* All landlord or single-owner controlled multiple-occupancy developments on parcels exceeding three (3) acres in size shall submit to the code official a master sign plan prior to issuance of new sign permits. The master sign plan, as approved by the code official, shall establish standards and criteria for all signs in the complex that require permits, and shall address, at a minimum, the following:

a. Proposed sign locations.

b. Materials.

c. Type of illumination.

d. Design of freestanding sign structures.

e. Size.

f. Quantity.

g. Uniform standards for non-business signage, including directional and informational signs.

h. Letter of approval from land owner or agent to be submitted with permit application.

i. All applications for sign permits for signage within a multiple-occupancy development complex shall comply with the master sign plan.

(2) *Amendments.* Any amendments to a master sign plan must be approved by the code official and signed by the owner(s) within the development complex before such amendment will become effective.

(j) *Directional signs.*

(1) *On-premises signs.* No more than two (2) on-premises directional signs shall be permitted at each public street entrance onto any property in a commercial, planned development, or manufacturing district. There shall be no limit to the number of directional signs providing directional information interior to a lot. The maximum area for any directional sign visible from adjacent property or rights-of-way shall be six (6) square feet. Not more than twenty-five (25) percent of the area of any directional sign shall be permitted to be devoted to business identification or logo.

(2) *Off-premises signs.* Signs directing the public to locations of businesses or facilities shall be allowed adjacent to arterial and collector streets as identified on the major street plan, at the intersection with the public streets leading to the business or facility. All off-premises directional signs shall be subject to the following limitations:

a. The sign area shall not exceed six (6) square feet in area.

b. The sign shall be placed not less than seven (7) feet above the surface of the ground and shall not exceed ten (10) feet in height above the ground surface.

c. The sign shall contain the name of the facility, distance, logo and directional arrow only.

d. A sign must be located completely on private property.

e. A business or facility must be located within the corporate limits, and shall be allowed no more than two (2) such signs.

f. No sign may be located within fifty (50) feet of another sign except when mounted on a common post.

g. Signs which are no longer applicable because of name changes, relocations, going out of business, or other reasons shall be removed immediately.

h. The square foot area of an off-premises directional sign shall not be counted toward the total allowable signage for the lot on which it is located.

(k) *Temporary signs.*

(1) *Real estate signs.* Real estate signs shall be permitted in all zoning districts, subject to the following limitations:

a. Real estate signs advertising the sale of a single residential lot may be placed on that lot without limitation on the number or size of such signs.

b. Real estate signs advertising the sale of lots located within a subdivision shall be limited to one (1) sign per entrance to the subdivision, and each sign shall be no greater than thirty-two (32) square feet in area nor six (6) feet in height. All signs permitted under this section shall be removed within ten (10) days after sale of the last original lot.

c. Real estate signs advertising the sale or lease of space within commercial or manufacturing buildings or vacant land shall be no greater than thirty-two (32) square feet in area nor six (6) feet in height, and shall be limited to one sign per street front.

d. Real estate signs shall be removed not later than thirty (30) days after execution of a lease agreement in the event of a lease, or the closing of the sale in the event of a purchase.

e. Real estate directional signs directing the public to a property which is for sale shall be allowed, but only on private property with the permission of the property owner.

f.

In addition to the real estate sign permitted under subsection a. hereinabove, a banner or other type sign may also be posted on the property to advertise an open house for that residential lot. This open house sign may be placed not sooner than forty-eight (48) hours before the open house and must be removed not later than the end of the day on which the open house is held. In no event, however, shall such sign be posted for more than three (3) consecutive days.

(2) *Development and construction signs.* Signs temporarily erected during construction to inform the public of the developer, contractors, architects, engineers, the nature of the project or anticipated completion dates, shall be permitted in all zoning districts, subject to the following additional limitations:

a. Such signs on a single residential lot shall be limited to one (1) sign, not greater than three (3) feet in height and ten (10) square feet in area.

b. Such signs shall be limited to one (1) sign, at each entrance to the development or on one (1) of the lots to be built upon, and shall be no greater than six (6) feet in height and thirty-two (32) square feet in area.

c. Such signs for nonresidential uses in residential districts shall be limited to one (1) sign, and shall be no greater than three (3) feet in height and ten (10) square feet in area.

d. Such signs for commercial, planned development, or manufacturing projects shall be limited to one (1) sign per street front, not to exceed ten (10) feet in height and thirty-two (32) square feet in total area for projects on parcels five (5) acres or less in size, and not to exceed ten (10) feet in height and sixty-four (64) square feet in total area for projects on parcels larger than five (5) acres.

e. Development and construction signs may not be displayed until after the issuance of building permits by the building official, and must be removed at the expiration of the permit or not later than thirty (30) days following issuance of an occupancy permit, whichever is earlier.

(3) *Special promotions and events.* In addition to other signs allowed by this code, signs temporarily displayed to advertise special promotions and events shall be permitted subject to the following limitations:

a. For nonprofit organizations, the following signs shall be permitted:

(i) *On-premises.* One (1) on-premises sign, which may be a banner sign, shall be permitted per street front of the non-profit organization sponsoring the event. Such signs shall not contain commercial advertising, be animated or flashing and shall not exceed three (3) feet in height and a total area of thirty (30) square feet. Such signs shall be erected not more than thirty (30) days prior to the event and shall be removed not more than one (1) day after the event.

(ii) *Off-premises.* Off-premises signs promoting a special event for a non-profit organization shall be permitted in all zoning districts. No more than one (1) such sign shall be displayed on any property, not exceeding three (3) feet in height and a total area of ten (10) square feet. Such signs shall not be animated, flashing or contain commercial advertising. Banner signs shall not be permitted. Such signs shall be erected not more than thirty (30) days prior to the event and shall be removed not more than one (1) day after the event.

b.

For commercial events or promotions, signs shall be permitted only in commercial, planned development, and manufacturing zoning districts, with the following restrictions:

(i) Not more than one (1) such sign shall be displayed on any property, not exceeding five (5) feet in height and a total area of thirty-two (32) square feet.

(ii) Electronic, video, or digital message signs shall be allowed if they meet the standards set out in section 25-506(g)(5)—(10), specific sign requirements.

(iii) One (1) banner sign is permitted if it is securely attached to an exterior wall or support structure of the business the sign pertains to, is in good repair and well maintained; and does not block public access.

(iv) Such signs may be displayed for not more than thirty (30) consecutive days in any three-month period, and not more than sixty (60) days in any calendar year. The signs shall be erected not more than five (5) days prior to the event, and shall be removed not more than one (1) day after the event. No animated or flashing signs shall be permitted.

(v) If signs are located on vehicles or trailers, such signs shall be displayed for not more than seven (7) consecutive days at any one (1) time and not more than thirty (30) days in a calendar year.

(4) *Garage sale signs.*

a. On-premises signs advertising a garage sale conducted on the premises shall be allowed, but only beginning the day before the sale and being removed by the end of the day of the sale.

b. Off-premises directional signs shall be allowed to direct the public to a garage sale, but only on private property with the permission of the property owner. All such signs shall include the address and date of the garage sale being advertised, and are subject to the same time restrictions as on-premises garage sale signs.

(5) *Portable signs.* Portable signs shall be permitted only in the commercial, planned development, and manufacturing districts, as designated in this code, subject to the following limitations:

a. No more than one (1) such sign may be displayed on any property, and shall not exceed a height of five (5) feet and a total area of thirty-two (32) square feet.

b. Such signs shall be displayed not more than thirty (30) days in any calendar year.

c. Any electrical portable signs shall comply with the ICC Electrical Code, as adopted in this city.

d. No portable sign shall be displayed prior to obtaining a sign permit.

e. No animated or flashing signs will be permitted.

(l) *Exempt signs.* The following signs shall be exempt from the provisions of this chapter.

(1) Official notices authorized by a court, public governmental body or public safety official.

(2) Directional, warning or information signs authorized by federal, state or municipal governments.

(3)

Memorial plaques, building identification signs and building cornerstones when cut or carved into a masonry surface or when made of noncombustible material and made an integral part of the building or structure.

(4) The flag of a government or noncommercial institution, such as a school.

(5) Street address signs and combination nameplate and street address signs that contain no advertising copy and which do not exceed six (6) square feet in area.

(m) *Prohibited signs.* Signs that are not specifically authorized are expressly prohibited. The following devices and locations shall be specifically prohibited:

(1) Signs located in such a manner as to obstruct or otherwise interfere with an official traffic sign, signal or device, or obstruct or interfere with a driver's view of approaching, merging or intersecting traffic.

(2) Except as approved by the code official for special events, signs encroaching upon or overhanging public right-of-way. No sign shall be attached to any utility pole, light standard, public tree or any other public facility located within the public right-of-way.

(3) Signs which blink, flash or are animated by lighting in any fashion that would cause such signs to have the appearance of traffic safety signs and lights, or emergency vehicle warnings from a distance.

(4) Except as authorized in section 25-506(k)(3)b., any sign attached to, or placed on, a vehicle or trailer parked on public or private property unless the following conditions are met:

a. The primary purpose of such a vehicle or trailer is not the display of signs;

b. The signs are magnetic, decals or painted upon the vehicle or equipment and do not break the silhouette of the vehicle; and

c. The vehicle or trailer is in operating condition, currently registered and licensed to operate on public streets when applicable, and actively used or available for use in the daily functions of the business to which such signs relate.

(5) Vehicles and trailers used primarily as static displays, advertising a product or service, nor utilized as storage, shelter or distribution points for commercial products or services for the general public.

(6) Banner signs, except as otherwise specifically authorized in this Code.

(Ord. No. 4178, art. 2, 12-6-10)

Secs. 25-507—25-600. Reserved.

Cape Girardeau, Missouri, Code of Ordinances >> PART II - CODE OF ORDINANCES >> Chapter 25 - DEVELOPMENT CODE >> ARTICLE VI. FENCES >>

ARTICLE VI. FENCES

Sec. 25-601. Applicability.
Sec. 25-602. Permitting process.
Sec. 25-603. General standards.
Sec. 25-604. Location, type and height.
Sec. 25-605. Prohibited fences.
Secs. 26-606—25-700. Reserved.

Sec. 25-601. Applicability.

The requirements of this section shall apply to the construction, installation, extension and replacement of all fences more than thirty-six (36) inches in height.

(Ord. No. 4178, art. 3, 12-6-10; Ord. No. 4290, art. 1, 1-9-12)

Sec. 25-602. Permitting process.

A fence permit shall be obtained prior to beginning construction, extension or replacement of all applicable fences. If more than thirty (30) percent of an existing fence is being replaced, a permit must be obtained. To obtain a permit for a fence, a completed application form and site plan must be submitted to the city manager. The following regulations apply to the installation of any fence requiring a permit.

(Ord. No. 4178, art. 3, 12-6-10; Ord. No. 4290, art. 1, 1-9-12)

Sec. 25-603. General standards.

(a) No fence shall be constructed on, or across, a property line, except where a fence is constructed on adjacent properties collectively owned by the fence owner. No fence shall be constructed on property not owned by the fence owner without the written permission of the property owner. The fence owner is responsible for locating property lines.

(b) Fences cannot be constructed within thirty (30) feet of the intersection of two (2) streets, as measured from the right-of-way/property line.

(c) Fences shall not be constructed within any utility easement, except as authorized by the city manager after the property owner signs a waiver accepting the responsibility for building a fence within a utility easement.

(d) All fences must be constructed in a workmanlike manner and maintained in their original upright condition.

(e) Missing boards, pickets or posts shall be replaced in a timely manner with material of the same type and quality.

(f) Fences shall have adequate footings, foundations, or post depth and size.

(g) For fences having a front and a back, such as a privacy fence, the front or finished side shall face outward from the property on which the fence is installed.

(Ord. No. 4178, art. 3, 12-6-10; Ord. No. 4290, art. 1, 1-9-12)

Sec. 25-604. Location, type and height.

Agricultural Uses:		
• Front, rear and side yards	Maximum of 4 feet	May include barbed wire, except where adjacent to a residential use or district
Residential Uses:		
• Rear and side yards	Maximum of 6 feet	
• Front yards	Maximum of 3 feet	50% of the surface must be open
Commercial Uses:		
• Rear and side yards	Maximum of 8 feet	May include barbed wire on top, except where adjacent to a residential use or district

• Front yards	Maximum of 3 feet	
Manufacturing Uses:		
• Front, rear and side yards	Maximum of 8 feet	May include barbed wire on top, except where adjacent to a residential use or district
Swimming Pools—All yards	Minimum of 4 feet	In accordance with section 13-37 of the City Code
Tennis Courts/Athletic Fields—All yards	Maximum of 12 feet	Must be open wire mesh fences
Playgrounds/Schools—All yards	Maximum of 8 feet	

(Ord. No. 4178, art. 3, 12-6-10; Ord. No. 4290, art. 1, 1-9-12)

Sec. 25-605. Prohibited fences.

(a) No fence shall be constructed solely of a single wire or of two (2) wires between posts or supports.

(b) No fence shall be constructed in whole or in part of barbed wire, except as allowed in section 25-604

(c) No fence shall be constructed in whole or in part of cloth, canvas or other like material.

(d) No fence shall be used for advertising purposes.

(e) No fence shall have connected to it any type of electrical current, except in the AG or AG-1 districts.

(Ord. No. 4178, art. 3, 12-6-10; Ord. No. 4290, art. 1, 1-9-12)

Secs. 26-606—25-700. Reserved.

Cape Girardeau, Missouri, Code of Ordinances >> PART II - CODE OF ORDINANCES >> Chapter 25 - DEVELOPMENT CODE >> ARTICLE VII. RETAINING WALLS >>

ARTICLE VII. RETAINING WALLS

Sec. 25-701. Applicability.
Sec. 25-702. Exemptions.
Sec. 25-703. Permitting process.
Sec. 25-704. Engineer certification required.
Sec. 25-705. Location of retaining walls.
Sec. 25-706. Terraced retaining walls.
Secs. 25-707—25-800. Reserved.

Sec. 25-701. Applicability.

The requirements of this section shall apply to the construction, installation, extension and replacement of all retaining walls of more than four (4) feet in height, as measured from the final grade at the lower-side of the wall to the top of the wall.

(Ord. No. 4178, art. 4, 12-6-10)

Sec. 25-702. Exemptions.

Retaining walls that meet the following requirements shall be exempt from the requirements of this section:

(a) Retaining walls less than four (4) feet in height.
(b) Retaining walls designed as part of a structure.
(c) Retaining walls shown on approved improvement plans.
(d) Retaining walls designed as part of a public capital improvement project.

(Ord. No. 4178, art. 4, 12-6-10)

Sec. 25-703. Permitting process.

A retaining wall permit shall be obtained prior to beginning any construction, extension or replacement of all applicable retaining walls. To obtain a retaining wall permit, a completed application form and site plan must be submitted to the city manager. The site plan shall include the following information:

(a) Location of all property lines.
(b) Location of all existing and proposed structures.
(c) Location of existing retaining walls on or adjacent to the property that are to remain in place, if applicable.
(d) Portions of existing retaining walls that will be replaced, if applicable.
(e) Location of new retaining wall.
(f) Location of utilities and utility easements; drainage easements and drainageways.
(g) Construction details to include, but not limited to, dimensions, cross-sections and footing design.
(h) Elevations above and below the retaining wall.
(i) The height of the proposed retaining wall and the material to be used.
(j) Engineer's certification, if required.
(k) Any additional information that may be requested by city staff after initial review.

Once all of the required information is submitted, it shall be reviewed for compliance. If the application is approved, the applicant shall pay the permit fee and the retaining wall permit will be issued. All retaining walls shall be installed in compliance with the retaining wall regulations and with the information shown on the approved site plan and retaining wall permit application form. The applicant shall contact the division of inspection services to request a final inspection upon completion of the retaining wall. If the inspector determines that the retaining wall was constructed in accordance with the requirements contained in this section and the approved retaining wall permit, a certificate of compliance will be issued forthwith. If the retaining wall does not pass the inspection, the inspector shall prepare an inspection report detailing the deficiencies within five (5) business days.

(Ord. No. 4178, art. 4, 12-6-10)

Sec. 25-704. Engineer certification required.

An engineer's design, certification and construction observation shall be required in the instances listed below. All engineering services shall be performed under the supervision of a professional engineer registered in the State of Missouri.

(a) Any retaining wall over four (4) feet in height where one and one-half (1.5) times the height of the wall is either (1) greater than or equal to the building setback of an adjacent lot, or (2) such calculated distance would encroach upon any structure.

(b) Any retaining wall over four (4) feet in height located adjacent to a public right-of-way.

(Ord. No. 4178, art. 4, 12-6-10)

Sec. 25-705. Location of retaining walls.

The location of all retaining walls shall conform to the following standards.

(a) *Private property.* All retaining walls shall be located on private property and shall be built with the consent of the property owners. The retaining wall installer and/or property owner shall be responsible to correctly locate property boundaries.

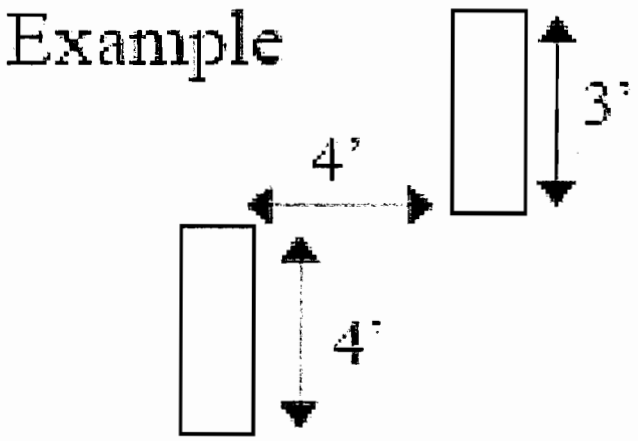
(b) *Sight triangle.* Retaining walls over thirty (30) inches tall constructed near street intersections shall not be located within twenty-five (25) feet of the intersection, as measured from the property/right-of-way line, in order to provide a reasonable degree of traffic visibility.

(c) *Easements.* Retaining walls shall not restrict access to utilities. Retaining walls shall not impede the normal flow of stormwater and shall not cross an open drainage channel. Approval of retaining walls proposed in a utility or drainage easement shall be subject to the discretion of the city manager. Retaining walls shall not be constructed over a public or private access easement.

(Ord. No. 4178, art. 4, 12-6-10)

Sec. 25-706. Terraced retaining walls.

If walls are terraced, the upper wall shall be located no closer to the lower wall than one (1.0) time the height of the tallest wall.



(Ord. No. 4178, art. 4, 12-6-10)

Secs. 25-707—25-800. Reserved.

ARTICLE VIII. LANDSCAPING AND BUFFERYARDS

Sec. 25-801. Purpose.
Sec. 25-802. Applicability.
Sec. 25-803. General landscaping requirements.
Sec. 25-804. Parking lot landscaping requirements.
Sec. 25-805. Bufferyards.
Sec. 25-806. Planting materials.
Secs. 25-807—25-900. Reserved.

Sec. 25-801. Purpose.

The intent of this section is to:

(a) Establish healthy environmental conditions by providing shade, air purification, oxygen regeneration, groundwater recharge, stormwater runoff retention and treatment, erosion control, and noise, glare and heat abatement.

(b) Provide visual buffering from a street, to buffer potentially incompatible land uses, and to generally enhance the quality of appearance of a development site, and the city as a whole.

(c) Encourage the preservation of existing trees and vegetation.

(Ord. No. 4178, art. 5, 12-6-10)

Sec. 25-802. Applicability.

The landscaping and bufferyard requirements of this section shall apply to those districts containing such requirements, as specified in chapter 30, zoning regulations.

(Ord. No. 4178, art. 5, 12-6-10)

Sec. 25-803. General landscaping requirements.

(a) Unless otherwise specified in chapter 30, zoning regulations, a minimum of fifteen (15) percent of the total land area of any tract, parcel or lot shall be landscaped. Landscaping shall be reasonably distributed throughout the site. No utility easement may be used for the required landscaping areas, unless approved in writing by the appropriate official of each affected utility.

(b) No new buildings or additions to existing buildings shall be permitted unless additional landscaping is provided on the tract, parcel or lot in an area equal to at least fifteen (15) percent of the land area occupied by the new building or addition, unless otherwise specified in chapter 30, zoning regulations.

(Ord. No. 4178, art. 5, 12-6-10)

Sec. 25-804. Parking lot landscaping requirements.

(a) All parking lots located within twenty (20) feet of a street right-of-way shall have a ten-foot wide street landscaping strip on private property separating parking areas from abutting street rights-of-way containing no less than four (4) of the categories of planting materials listed below. The street landscaping strip shall contain at least one (1) tree per fifty (50) linear feet of street frontage. Such trees may be clustered or arranged within the area and need not be placed at even intervals. The street landscaping strip may contain driveways. In the central business district (CBD), this street landscaping strip shall be designed and constructed to create an edge along street rights-of-way that minimize the disruption of the urban environment created by the wide expanse of parking lots and vehicular use areas and shall be consistent with any adopted streetscape plans adopted for the area.

(b) A minimum of fifteen (15) percent of all parking lots must consist of landscaped area. The landscaped areas shall be reasonably distributed throughout the parking lot. Any interior landscaped areas shall be recessed areas which help control and treat stormwater runoff, unless otherwise allowed by the city manager.

(c) If the parking requirements for a land use exceed one hundred fifty (150) parking spaces, parking areas of no more than one hundred fifty (150) spaces shall be separated by a landscaped area which is at least ten (10) feet in width. The ten-foot wide landscaped area shall contain at least four (4) of the categories of planting materials listed below. In addition, trees shall be planted within the ten-foot wide landscaped area at the rate of a minimum of one (1) tree for each fifty (50) linear feet. Appropriately placed connections between parking areas are permitted. The following uses are exempt from the requirements of this section: motor vehicle or trailer sales and service; and farm machinery sales and service.

(d) Landscaping shall not be allowed to obstruct the view of motorists using any street, private driveway, parking aisles or the approach to any street intersection so as to constitute a traffic hazard or condition dangerous to the public safety. Landscaping in these areas shall be a maximum of eighteen (18) inches tall.

(e) Landscaping shall be maintained in good condition and replaced within one (1) season where necessary to ensure the continuation of appropriate landscaped material.

(f) The landscape plantings shall be considered as an element of a project in the same manner as paved parking, building construction and materials, stormwater drainage, and other elements and shall be included in the required site plan. All plant materials shall be installed prior to issuance of certificates of occupancy. A temporary certificate of occupancy (TCO) may be issued prior to installation of plant materials provided that a written assurance and a financial guarantee is furnished to the city manager to insure the installation of required materials within six (6) months of the issuance of the TCO. The financial guarantee shall be equal to two (2) times the cost of the materials, as estimated by the owner's landscape architect, architect, land planner or nurseryman, and the guarantee may be in the form of a letter of credit, bond or cash.

(g) Property owners are encouraged to incorporate stormwater management features into required landscaping areas. If landscaped areas are used to fulfill required stormwater management requirements, owners shall annually certify to the city that the stormwater management practices are being maintained and performing properly. Stormwater management requirements are specified in chapter 23 of this Code.

(Ord. No. 4178, art. 5, 12-6-10)

Sec. 25-805. Bufferyards.

Bufferyards shall be a minimum of twenty (20) feet wide and may be included within required yard setback areas. No utility easement may be included in the bufferyard area, unless approved in writing by the appropriate official of each affected utility. Plantings shall achieve an eighty (80) percent opacity within four (4) years. Three (3) types of bufferyards are required, depending on the use of the property being developed and the use or zoning district of the adjacent property: Type A, B, and C. Type A is required for multifamily residential uses or mobile home parks, either of which are located adjacent to single-family residential districts or uses. Type B is required for commercial uses, which are adjacent to any residential use or district. Type C is required for manufacturing/industrial uses, either of which are located adjacent to any commercial or residential use or district. Barriers are also required for the Type C bufferyard.

Type A Bufferyard. Plantings required per one hundred (100) linear feet:

Two (2) small deciduous or ornamental trees.

One (1) medium and large deciduous shade tree.

Two (2) conifer or upright evergreen trees.

Ten (10) shrubs.

Grasses, groundcover plants, flowers or forbs as desired.

Natural buffer area, where existing vegetation is equal to or greater than required plantings as approved by the city manager.

Type B Bufferyard. Plantings required per one hundred (100) linear feet:

Three (3) small deciduous or ornamental trees.

Two (2) medium or large deciduous shade trees.

Two (2) conifers or upright evergreen trees.

Sixteen (16) shrubs.

Grasses, groundcover plants, flowers or forbs as desired.

Natural buffer area, where existing vegetation is equal to or greater than required plantings as approved by the city manager.

Type C Bufferyard. Plantings required per one hundred (100) linear feet:

Three (3) small deciduous or ornamental trees.

Three (3) medium or large deciduous trees.

Four (4) conifers or upright evergreen trees.

Twenty (20) shrubs.

Grasses, groundcover plants, flowers or forbs as desired.

Natural buffer area, where existing vegetation is equal to or greater than required plantings as approved by the city manager.

Solid barrier: Six-foot tall solid wood fence; or six-foot tall solid masonry/brick wall; or six-foot tall solid evergreen hedge.

(Ord. No. 4178, art. 5, 12-6-10)

Sec. 25-806. Planting materials.

The categories of planting materials, and the minimum planting sizes for planting materials, where applicable, shall be as follows:

(a) *Medium and large deciduous shade trees:* Two-inch caliper, as measured six (6) inches above the ground, as specified by the American Association of Nurserymen or Shaw Nature Reserve.

(b) *Small deciduous or ornamental trees:* Four (4) feet in height as specified by the American Association of Nurserymen or the GrowNative Native Planting Information, with the exception of true dwarf species.

(c) *Conifers:* Six (6) feet in height.

(d) *Missouri native grasses/sedges:* As specified by the GrowNative Native Planting Information.

(e) *Upright evergreen trees:* Four (4) feet in height as specified by the American Association of Nurserymen or the GrowNative Native Planting Information, with the exception of true dwarf species.

(f) *Deciduous shrubs:* Minimum two-gallon size.

(g) *Evergreen shrubs:* Minimum two-gallon size.

(h) *Ground cover plants (crowns, plugs, containers):* In a number as appropriate by species to provide at least fifty (50) percent surface coverage after two (2) growing seasons.

(i) *Grass seeding or sod:* As appropriate to provide complete coverage within the first growing season.

(j) *Perennial flowers or native Missouri forbs:* As specified by the GrowNative Native Planting Information.

(Ord. No. 4178, art. 5, 12-6-10)

Secs. 25-807—25-900. Reserved.

ARTICLE IX. STREETS

Sec. 25-901. Definitions.
Sec. 25-902. Streets to be public.
Sec. 25-903. Street name.
Sec. 25-904. Street numbering system.
Sec. 25-905. Survey monuments.
Sec. 25-906. Street standards.
Sec. 25-907. Street improvements.
Sec. 25-908. Stormwater management.
Sec. 25-909. Street lighting.
Sec. 25-910. Bicycle routes.
Sec. 25-911. Sidewalks and trails.
Sec. 25-912. Driveways.
Secs. 25-913—25-1000. Reserved.

Sec. 25-901. Definitions.

As used in this article, the following definitions apply:

Alley. A secondary means of ingress and egress serving more than one (1) tract of land and used primarily for vehicular access.

Development. Any manmade change in improved and unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, diking, berming, excavation, drilling operations, or storage of equipment or materials.

Sight distance. The distance visible to the driver of a passenger vehicle measured along the normal travel path of a street to a specified height above the street when the view is unobstructed to oncoming traffic.

Street. All property dedicated for public or private street, highway, freeway or roadway purposes or subject to public or private easement therefore.

Street, arterial. A street or road of considerable continuity which serves or is intended to serve as a principal traffic way between separate areas or districts and which is the main means of access to the collector street system, highways, and expressways.

Street, collector. Streets, which in addition to servicing abutting properties, intercept local streets, connect with community facilities and carry neighborhood traffic to the arterial street systems.

Street, cul-de-sac. A short independent street terminating in a circular turnaround.

Street, local. A street designated to provide access to abutting property from collector and arterial streets.

Street, loop. A short independent street which terminates along the same street as its origin.

Throat length. The distance parallel to the centerline of a driveway to the first on-site location at which a driver can make a right turn or a left turn. On streets with curbs and gutters, the throat length shall be measured from the back of the curb. On streets without a curb and gutter, the throat length shall be measured from the edge of the shoulder.

(Ord. No. 4225, art. 1, 5-16-11)

Sec. 25-902. Streets to be public.

All new streets constructed in the city shall be public streets, constructed to the street standards contained in this article. If requested by the developer and approved by the city manager, new local streets may be privately owned and maintained, but must still be constructed to the street standards contained in this article. Private streets shall be inspected by City of Cape Girardeau personnel and inspection fees will be charged to the developer for these inspections. Private streets shall be dedicated to public use. New private streets, if approved by the city manager, may have gates to limit access only if the following minimum standards are met:

(a) A system for entry by emergency and maintenance personnel is approved by the city manager.

(b) Gates shall be a minimum of fourteen (14) feet wide;

(c) Gates shall not be placed or located so as to obstruct or interfere with the entry of public works vehicles or emergency vehicles including police, ambulance, and fire apparatus.

(Ord. No. 4225, art. 1, 5-16-11)

Sec. 25-903. Street name.

Proposed streets which are continuations of, or in general alignment with, existing named streets, shall bear the names of such existing streets. The name of a proposed street which is not in alignment with an existing street shall not duplicate the name of any existing or platted street within the city or within three (3) miles of the city limits. All the names of streets proposed by the subdivider shall be approved by the city manager prior to submitting the proposed record plat for review.

(Ord. No. 4225, art. 1, 5-16-11)

Sec. 25-904. Street numbering system.

(a) *Number required.* Every building in the city shall be assigned a street address on the street on which the building fronts. For the purpose of a proper distribution of numbers, there shall be allotted one (1) number to each space of twenty (20) feet frontage, or fractional part thereof. For subdivisions originally platted within the county, the county style of addressing shall be continued including the allotment of one (1) number to each space of ten and one-half (10.5) feet frontage. It shall be the duty of the owners and occupants of each residential building in the city to have placed thereon, in a place visible from the street, numbers at least four (4) inches high or reflective white numbers at least three (3) inches high on a reflective green or blue background, showing the correct number of the building. It shall be the duty of the owners and occupants of each commercial or industrial building in the city to have placed thereon two (2) sets of numbers at least six (6) inches high, showing the correct number of the building. One (1) set shall be visible from the street and the other set visible from the rear of the building where there is access to the rear of the building from a street, alley or parking area or where there is a rear entrance to or exit from the building or where exceptional circumstances exist as determined by the city manager. All building numbers shall be in Arabic numerals of a color contrasting with that of the building and script numbers shall not be permitted except as an auxiliary to the building numbers themselves.

(b) *Buildings on streets running north and south.* In numbering the buildings on streets running north and south, the numbering shall begin at Independence Street, as a dividing street, from Water Street to Farrar Drive, as a dividing street, south to William Street (Route K), as a dividing street, from Interstate 55 westward. The even numbers shall be on the east side, and the odd numbers shall be on the west side. The numbering shall be continued in each block on streets lying north and south of the dividing streets, respectively; the number of the second block shall begin with number "201", the third block with the number "301", and continue in the same manner, until all the buildings are numbered, reserving consecutive numbers for vacant spaces of twenty (20) feet. For subdivisions originally platted within the county, the county style of numbering shall be continued, including reserving consecutive numbers for vacant spaces of ten and one-half (10.5) feet as noted above.

(c) *Buildings on streets running east and west.* In numbering the buildings in blocks situated on streets running east and west, the numbering shall begin at the eastern edge of the city limits, and the same rules shall govern the numbering as provided above, except that the even numbers shall be on the north side of the street and the odd numbers shall be on the south side of the street.

(Ord. No. 4225, art. 1, 5-16-11)

Sec. 25-905. Survey monuments.

Survey monuments shall be placed, by a land surveyor, at all street corners, as further described in the city's standards and specifications, and so located to find angle points, points of tangency of curves on one (1) side of the street, and at all boundary corners. Should conditions prohibit the placing of any monuments at the above locations, offsetting of the permanent marker is permitted; provided, however, that exact off-street courses and distances are shown on the record plat. Monuments shall meet the state standards for survey monuments. All proposed developments shall be "tied" to a Missouri State Plane monument. All coordinates shall be shown on a record plat or accompanying documents. No coordinates are to be assumed.

(Ord. No. 4225, art. 1, 5-16-11)

Sec. 25-906. Street standards.

The arrangement, character, extent, width, grade and location of all streets shall be considered in their relation to existing and proposed streets, to topographical conditions, to public convenience and safety, and in their appropriate relation to the proposed uses of the land to be served by such streets. The following standards shall apply:

(a) Arrangements of streets shall reasonably conform as nearly as possible to the major street plan, and the developer shall make provision for the extension of arterial, collector and local streets. Except for loop or cul-de-sac streets, streets shall connect with streets already established, or provide for future connections to adjoining unsubdivided tracts, or shall be a reasonable projection of streets in adjacent tracts.

(b) Reserved strips of land which control or limit access at the terminus of streets are prohibited.

(c) A tangent of at least one hundred (100) feet long shall be introduced between reverse curves on arterial and collector streets.

(d) Streets shall intersect other streets with an angle of ninety (90) degrees extending a minimum distance of one hundred (100) feet, unless the city manager approves a minor deviation.

(e) A minimum radius of twenty-two (22) feet at street right-of-way intersection and a minimum radius of thirty-two (32) feet at the back of the curb shall be required. Greater radii may be required at the intersection and at the back of the curb of a street with an arterial street. The city manager may permit comparable cutoffs or chords in lieu of rounded corners at street right-of-way intersections.

(f) All streets intersecting on arterial or collector streets shall be directly opposite existing or other proposed streets or shall be a minimum of three hundred (300) feet distant, as measured between street centerlines. Local street intersection jogs or discontinuities with centerline offsets of less than two hundred (200) feet shall be avoided.

(g) Streets shall be constructed to the city's standards and specifications contained in the city engineer's office.

(h) Any subdivision platted along an existing street shall provide additional right-of-way, as shall be required in Table A.

(i) All streets in excess of two hundred fifty (250) feet in length shall be provided with a turnaround, cul-de-sac, or hammerhead, as specified in the city's standards and specifications. Temporary turnarounds, cul-de-sacs and hammerheads shall be

allowed for a maximum of five (5) years after which time permanent pavement must be constructed.

(j) All streets shall be designed to meet the minimum requirements set forth in Table A, street standards, which is designed to provide the maximum allowable flexibility in street construction standards, while at the same time insuring the protection of the public interest. The widths of rights-of-way and pavements are allowed to vary as functions of the type of street and the corresponding intensity of use warrant. Street classifications may be indicated on the major street plan; otherwise, it shall be determined by the city manager.

(k) Radius of curve, superelevation, rates of vertical curvature (k-values), and all other design parameters of streets not specifically listed shall be designed in accordance to the most current version of the AASHTO Geometric Design of Highways and Streets.

(l) The use of traffic calming methods within developments is encouraged, including the utilization of curves, islands, intersections, and/or other methods that allow adequate access but promote traffic calming. The use of speed bumps is not allowed.

(m) A sight distance triangle shall be provided at every intersection in accordance with the most current version of the AASHTO Geometric Design of Highways and Streets. This sight distance triangle shall be measured from the outside edge of the travel lane. This unobstructed triangular area will permit the vehicles on either street to stop, if necessary, before reaching the intersection. Landscaping should be limited to a maximum height of eighteen (18) inches within this sight distance triangle. There shall be no parking or driveways in the sight distance triangle.

Table A - Street Standards

	Single-Family Residential Lots larger than 1 acre	Single-Family and Two-Family Residential Lots 1 acre or less	Multifamily Residential and Townhouses	Commercial
For All Street Classifications				
Maximum block length+	1,000 feet	800 feet	600 feet	500 feet
Maximum cul-de-sac length	800 feet	600 feet	500 feet	500 feet
Maximum loop street length	3,000 feet	2,400 feet	1,800 feet	1,500 feet
Vertical curves	All changes in grade shall be connected by vertical curves to provide a smooth transition and the required sight distance.			
Alleys				
Pavement width	14 feet total	14 feet total	14 feet total	Not Allowed
Parking	none	none	none	Not Allowed
Right-of-way width	20 feet	20 feet	20 feet	Not Allowed
Local Streets				
Street width*	20 feet total 2 10-foot driving lanes	24 feet total 2 12-foot driving lanes	36 feet total 2 11-foot driving lanes 2 7-foot parking lanes	36 feet total 3 12-foot driving lanes
Curbs and gutters	No curbs 2 2-foot shoulders	Yes	Yes	Yes
Sidewalks	None	5 feet wide each side	6 feet wide each side	5-feet wide each side
Parking	One side only	One side only	Both sides	None
Right-of-way width	50 feet	50 feet	60 feet	60 feet

Utility easements	10 feet each side of r-o-w	10 feet each side of r-o-w	10 feet each side of r-o-w	10 feet each side of r-o-w
Minimum grade	1%	1%	1%	1%
Maximum grade	12%	11%	10%	8%
Collector Streets				
Street width*	24 feet total 2 12-foot lanes	27 feet total 2 10-foot driving lanes 1 7-foot parking lane	36 feet total 2 11-foot driving lanes 2 7-foot parking lanes	40 feet total 2 12-foot driving lanes 2 8-foot parking lanes
Curbs and gutters	Yes	Yes	Yes	Yes
Sidewalks	5 feet wide each side	5 feet wide each side	6 feet wide each side	6 feet wide each side
Parking	No	One side only	Both sides	Both sides
Right-of-way width	60 feet	60 feet	80 feet	80 feet
Utility easements	10 feet each side of r-o-w	10 feet each side of r-o-w	10 feet each side of r-o-w	10 feet each side of r-o-w
Minimum grade	1%	1%	1%	1%
Maximum grade	10%	10%	10%	7%
Arterial Streets				
Street width*	None	None	36 feet total 3 12-foot driving lanes	36 feet total 3 12-foot driving lanes
Curbs and gutters	None	None	Yes	Yes
Sidewalks	None	None	6 feet wide each side	6 feet wide each side
Bike lanes	None	None	4 feet each side**	4 feet each side**
Parking	None	None	None	None
Right-of-way width	None	None	100 feet	100 feet
Utility easements	None	None	10 feet each side of r-o-w	10 feet each side of r-o-w
Minimum grade	None	None	1%	1%
Maximum grade	None	None	8%	6%

;adv=6# Blocks shall have sufficient depth to provide for two (2) tiers of lots of appropriate depth.

* Street width does not include curbs and gutters

** Adjust street width accordingly.

(Ord. No. 4225, art. 1, 5-16-11)

Sec. 25-907. Street improvements.

At such time as the development or redevelopment of a property is proposed that is adjacent to a street that is accepted and maintained by the city, that portion of such street adjacent to the proposed development shall be improved to handle the increased traffic due to such development or redevelopment. Necessary improvements may include, but are not limited to, turn lanes, additional through travel lanes and traffic signals. Any additional right-of-way needed for these improvements shall be dedicated by the developer at no cost to the city. The cost of the necessary improvements shall be paid by the developer. The improvements shall be made to current city specifications and standards and shall comply with the major street plan of the city.

(Ord. No. 4225, art. 1, 5-16-11)

Sec. 25-908. Stormwater management.

The use of porous and permeable pavement, rain gardens, permeable pavers, and native vegetation are encouraged in order to minimize the amount of impervious surfaces within the city. Storm drainage improvements shall consist of storm sewers which shall adequately drain the areas being developed. Open channels may be permitted with approval by the city manager. The design of drainage improvements shall be coordinated to the extent possible with present and probable future improvements so as to form part of an integrated system. Adequate provisions shall be made for the disposal of stormwater, in accordance with the specifications, ordinances and standards of the city, and subject to the inspection and approval of the city manager.

(Ord. No. 4225, art. 1, 5-16-11)

Sec. 25-909. Street lighting.

The primary purpose of streetlights is to improve traffic and pedestrian safety along streets. Preference shall be given for installation of streetlights on existing poles in order to reduce roadside hazards. The proper location, design and installation of streetlights on streets in new developments shall be the responsibility of the developer, in accordance with the city's standards and specifications. Streetlights shall be installed at the time new streets are constructed. Streetlights installed without prior approval by the city or not in accordance with this Code and the city's standards and specifications shall not be accepted as improvements and shall not be the responsibility of the city to operate or maintain. Requests for nonstandard streetlights shall be directed to public works and must be approved by the city manager. Nonstandard streetlights, not approved by city manager will not be the responsibility of the city, but shall be the responsibility of the developer or property owners association for construction, maintenance, operation and repair.

(Ord. No. 4225, art. 1, 5-16-11)

Sec. 25-910. Bicycle routes.

Preferred routes for bicyclists are designated on the city's major street plan. Consideration for bicyclists could include a wider travel lane, marked bike paths, or multimodal paths. Bicycle lanes are required along arterials with consideration given to other streets. The minimum width for bicycle lanes on a street with no on-street parking is four (4) feet. The minimum width for bicycle lanes on a street with on-street parking is five (5) feet, which should be located between the travel lane and the parking areas. All bicycle lanes shall be designed, constructed, posted, marked, and striped according to the city's standards and specifications.

(Ord. No. 4225, art. 1, 5-16-11)

Sec. 25-911. Sidewalks and trails.

At the time street improvements are installed or development of property occurs, sidewalks shall be constructed as required in street standards, Table A. There shall be a minimum of two and one-half (2.5) feet between the curb of the street and the sidewalk. Sidewalks shall be constructed in accordance with the city's standards and specifications. Sidewalks must be in acceptable condition at the time occupancy permits are issued. The requirement for sidewalks may be waived under the following circumstances, as approved by the city manager:

(a) Better pedestrian and bicycle access and connectivity is provided by an off-street trail that connects to sidewalks or other trails;

(b) If there are no other sidewalks within five hundred (500) feet of the property;

(c) If the topography of the site is such that sidewalks are not feasible. Multimodal trails shall be at least ten (10) feet in width and designed, posted and marked in accordance with the city's standards and specifications. A public access easement of appropriate width shall be granted for all public trails.

(Ord. No. 4225, art. 1, 5-16-11; Ord. No. 4407, art. 1, 12-17-12)

Sec. 25-912. Driveways.

Additional regulations for driveways are contained in chapter 24. Spacing requirements for the distance between driveways is included in article X, access management. Sidewalks constructed within a driveway shall be in accordance with the city's standards and specifications. The following driveway design criteria are required:

Driveway Design Criteria	Local Streets	Collector Streets	Arterial Streets
Maximum width at end of radius	10 feet–30 feet	10 feet–30 feet	14 feet–40 feet
Radius	Maximum of 15 feet	Maximum of 25 feet	Maximum of 55 feet
Maximum grade on right-of-way*	¼ inch per 1 foot	¼ inch per 1 foot	¼ inch per 1 foot

* A waiver may be granted by the city manager.

(a) *Common driveways.* Common driveways serving two (2) adjacent properties may be allowed subject to the same width requirements as any other driveway. Cross access easements shall be provided.

(b) *Multifamily residential, commercial and manufacturing driveway throat length.* The driveway throat length should minimize or eliminate the condition where inbound traffic queues back onto a street. The throat length also provides for a place for exiting vehicles to queue, better definition of the driving lanes, and separation between the parking area and the adjacent street. Driveway throat lengths shall meet the following requirements and should be based on the ultimate street section anticipated:

(1) All driveways shall provide at least fifty (50) feet of throat length adjacent to local and collector streets and one hundred (100) feet adjacent to arterial streets.

(2) For driveways serving between one hundred (100) and four hundred (400) vehicles in the peak hour (two-way traffic volumes) the driveways shall provide at least one hundred twenty-five (125) feet of throat length.

(3) For driveways serving over four hundred (400) vehicles per hour (two-way traffic volume) and for all driveways controlled by a traffic signal, adequate throat length shall be determined by a transportation traffic study.

(4) For driveways serving extremely low volumes (ten (10) vehicles or less in the peak hours) on low volume streets (less than one hundred (100) vehicles existing or projected in any hour), low speed (twenty-five (25) miles per hour speed limit) streets, a throat depth of thirty (30) feet may be permitted at the city manager's discretion.

(c)

Accommodation of pedestrians. All driveways serving multifamily residential, commercial and manufacturing uses must adequately accommodate pedestrians using sidewalks or trails.

(d) *Accommodation of bicycles.* Where a new driveway serving multifamily residential, commercial or manufacturing uses crosses a bicycle facility (such as a dedicated bike path or an on-street bike lane), the driveway should be designed so as to accommodate the safe crossing of bicyclists. Likewise, when a new bicycle facility is built that crosses existing driveways, the bicycle facility should be designed with safe crossings in mind.

(e) *Driveway extensions.* Driveways must extend to a garage, carport, or parking area adjacent to a driveway.

(f) *Culverts.* Culverts shall be required in accordance with the city's standards and specifications. It shall be at the expense of the property owner to install, maintain and replace culverts.

(Ord. No. 4225, art. 1, 5-16-11; Ord. No. 4407, art. 2, 12-17-12)

Secs. 25-913—25-1000. Reserved.

Cape Girardeau, Missouri, Code of Ordinances >> PART II - CODE OF ORDINANCES >> Chapter 25 - DEVELOPMENT CODE >> ARTICLE X. ACCESS MANAGEMENT >>

ARTICLE X. ACCESS MANAGEMENT

Sec. 25-1001. General.
Sec. 25-1002. Definitions.
Sec. 25-1003. Applicability.
Sec. 25-1004. Standards.
Sec. 25-1005. Driveway spacing requirements; multifamily residential, commercial and manufacturing uses.
Sec. 25-1006. Driveway spacing requirements; single-family, duplex (two-family) and townhouse residential uses.
Secs. 25-1007—25-1100. Reserved.

Sec. 25-1001. General.

Access management is the careful planning and design of driveways, median openings, and property connections to a roadway. Access management takes a comprehensive view of property access relative to the function of the streets from which it is provided. The objective of access management is to optimize, or find the right balance, between property access and traffic safety and efficiency, particularly along arterial streets. In other words, access is viewed in the context of the street system instead of just the individual property. The objective of this article is to avoid increased conflicts caused by access points in already developed areas and to prevent the creation of problems in the future.

(Ord. No. 4225, art. 2, 5-16-11)

Sec. 25-1002. Definitions.

[The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:]

Connection. Any driveway, street, turnout or other means of providing for the movement of vehicles to or from the roadway system.

Cross access. A service drive that provides vehicular access between two (2) or more abutting sites so that the driver need not enter the street system to move between them.

Development. Any manmade change in improved and unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, diking, berming, excavation, drilling operations, or storage of equipment or materials.

Frontage street. A local street that is used to provide alternative access to property from a street with higher functional classification; frontage streets typically run parallel to an arterial street and provide access at the front of a line of adjacent properties.

Functional area. The area surrounding an interchange or intersection that includes the space needed for drivers to make decisions, accelerate, decelerate, weave, maneuver, and queue for turns and stop situations.

Median. A barrier that separates opposing flows of traffic. Raised medians (with curbs and a paved or landscaped area in the center) are generally used in high traffic areas.

Queue storage. That portion of a traffic lane that is used to temporarily hold traffic that is waiting to make a turn or proceed through a traffic control device such as a stop sign or traffic signal.

Right-in, right-out. A driveway where left turns are prohibited either by physical or regulatory means.

Sight distance. The distance visible to the driver of a passenger vehicle measured along the normal travel path of a roadway to a specified height above the roadway when the view is unobstructed to oncoming traffic.

Street. All property dedicated for public or private street, highway, freeway or roadway purposes or subject to public or private easement therefore.

Street, arterial. A street or road of considerable continuity which serves or is intended to serve as a principal trafficway between separate areas or districts and which is the main means of access to the collector street system, highways, and expressways.

Street, collector. Streets, which in addition to servicing abutting properties, intercept local streets, connect with community facilities and carry neighborhood traffic to the arterial street systems.

Street, cul-de-sac. A short independent street terminating in a circular turnaround.

Street, local. A street designated to provide access to abutting property from collector and arterial streets.

Street, loop. A short independent street which terminates along the same street as its origin.

Throat length. The distance parallel to the centerline of a driveway to the first on-site location at which a driver can make a right turn or a left turn. On roadways with curb and gutter, the throat length shall be measured from the back of the curb. On roadways without a curb and gutter, the throat length shall be measured from the edge of the shoulder.

Two-way left-turn lane (TWLTL). A lane located between opposing traffic flows which provides a transition area for left-turning vehicles.

(Ord. No. 4225, art. 2, 5-16-11)

Sec. 25-1003. Applicability.

The provisions of this article are not retroactive. Existing nonconforming properties may continue in the same manner as they existed prior to the adoption of this article. Properties with nonconforming access connections shall be allowed to continue, but must be brought into compliance with this article to the maximum extent possible when modifications to the street system are made or when a change in use or redevelopment of the property occurs, and one (1) or more of the following conditions are met:

(a) When a new connection or modification of an existing connection is requested or required.

(b) When a site plan for a new development or the redevelopment of a property is submitted.

(c) If the principal activity on a property is discontinued for a period of one (1) year or more, or construction has not been initiated for a previously approved site plan within a period of one (1) year from the date of approval.

(Ord. No. 4225, art. 2, 5-16-11)

Sec. 25-1004. Standards.

(a) *Cross access.* In order to minimize access points on arterial streets, adjacent multifamily residential, commercial or manufacturing uses shall provide a cross access drive and pedestrian access way to allow circulation between adjacent developments. This requirement shall also apply to a building site that abuts an existing developed property. Property owners shall record all necessary easements and agreements, including an easement allowing cross access to and from the adjacent properties and a joint maintenance agreement defining maintenance responsibilities of property owners that share the cross access system.

(b) *Truck movements.* Driveways and internal circulation must be designed to accommodate the largest truck anticipated to serve the development. Vehicle turning paths need to be provided such that trucks do not encroach over curbs and medians. Any encroachment into opposing turning lanes should be minimized and should be consistent with the scale of the development and the frequency and timing of truck movements. Truck circulation through a development site should minimize conflicts with customer traffic. Loading docks should be configured such that parked trucks do not impede normal traffic flow.

(c) *Restrictive medians.* Restrictive medians shall prohibit vehicles from crossing the median except at designated median openings. Restrictive medians shall provide refuge for pedestrians at intersections and shall be ADA accessible. Restrictive medians shall be required if all of the following conditions are met:

(1) On arterial streets with four (4) or more lanes;

(2) Speeds posted at forty-five (45) mph or above;

(3) Adjacent to left turn lanes at signalized intersections where driveways are present within the intersection functional area;

(4) Adjacent to dual left turn lanes.

(d) *Median openings.* The minimum spacing standards for full median openings shall be one-quarter (¼) mile subject to the limitations below:

(1) Median openings shall not be permitted within the functional area of an interchange.

(2) Median openings shall not be permitted where an opening would be unsafe due to inadequate sight distance requirements.

(3) Directional median openings may be provided at any connection that meets the connection spacing requirements.

(4) Left turn lanes shall be required at all median openings. Median openings shall not be permitted where adequate queue storage cannot be provided for the left turn lanes.

(e) *Connection spacing.* Connections to arterial streets shall conform to the following requirements:

(1) Be located outside any interchange or intersection functional areas.

(2) Provide sufficient separation for provision of warranted or required right turn lanes and left turn lanes.

(3) Be aligned with existing or planned connectors on the opposite side of the street (except where movements are limited to right turns in and right turns out).

(4) If offset from connections on the opposite side of the street (where no restrictive median is in place), minimum separations (measured from centerline to centerline) shall be:

a. Arterial: Five hundred thirty (530) feet;

b. Collector: Two hundred fifty (250) feet;

c. Left-in only movements must be controlled through the use of a restrictive median.

(5) Connections to limited access streets, as identified on the street classifications map, shall be streets only and not driveways into individual properties. The connection spacing for these streets shall conform with the following table:

Undivided Street	Divided Street		
	All movements	Right turn in Right turn out	Directional opening*
990—2,640 feet	1,320—2,640 feet	330—990 feet	660—1,320 feet

Range to be determined by the city manager.

* Typically designed for left turns from the major roadway or left turns and u-turns.

(f) *TWLTL.* Continuous two-way left turn lanes are discouraged, but shall be considered for:

(1) Collector streets adjacent to property that is developed as or planned for commercial development.

(2) Areas where there is a need for frequent left turn lanes.

(Ord. No. 4225, art. 2, 5-16-11)

Sec. 25-1005. Driveway spacing requirements; multifamily residential, commercial and manufacturing uses.

Posted Speed of Street (mph)	Minimum Separation Between Driveways (feet)
25	105
30	125
35	150
40	185
45	230
50	275
55	330

The distance between driveways is measured from near edge to near edge of adjacent driveways. Where a parcel lacks sufficient frontage to meet the above requirements, the owner may: 1) seek a variance, but in no case can the variance permit spacing be less than the next lowest classification, or 2) agree to establish a common driveway with adjacent owners and provide for cross access between properties.

(Ord. No. 4225, art. 2, 5-16-11)

Sec. 25-1006. Driveway spacing requirements; single-family, duplex (two-family) and townhouse residential uses.

Only one (1) driveway shall be allowed for single-family residential lots with less than eighty (80) feet of frontage. No more than two (2) driveways shall be allowed for any single-family residential lot. No more than one (1) driveway shall be allowed for each side of a duplex, or two-family residential structure. Driveways shall be a minimum of ten (10) feet apart, measured from the ends of the radii at the curbline. The required spacing between driveways may be waived due to elevation differences between them.

(Ord. No. 4225, art. 2, 5-16-11)

Secs. 25-1007—25-1100. Reserved.

ARTICLE XI. UTILITIES

Sec. 25-1101. Applicability.
Sec. 25-1102. Definitions.
Sec. 25-1103. In general; utilities.
Sec. 25-1104. In general; water and sanitary sewer mains.
Sec. 25-1105. In General; water and sanitary sewer connections.
Sec. 25-1106. Sanitary sewer connections.

Sec. 25-1107. Water connections.
Sec. 25-1108. Stormwater.
Sec. 25-1109. Private utilities.
Secs. 25-1110—25-1200. Reserved.

Sec. 25-1101. Applicability.

The provisions of this article are not retroactive. Existing nonconforming properties may continue in the same manner as they existed prior to the adoption of this article. Properties in nonconformance shall be allowed to continue, but must be brought into compliance with this article to the maximum extent possible when modifications to the utility system are made or when a change in use or redevelopment of the property occurs, and one (1) or more of the following conditions are met:

(1) When a new connection or modification of an existing connection is requested or required.

(2) When a site plan for a new development or the redevelopment of a property is submitted.

(3) If the principal activity on a property is discontinued for a period of one (1) year or more, or construction has not been initiated for a previously approved site plan within a period of one (1) year from the date of approval.

(Ord. No. 4225, art. 3, 5-16-11)

Sec. 25-1102. Definitions.

As used in this article, the following definitions apply:

Agent. A person legally authorized to act for another.

Building service line. The portion of a water line or sewer line that connects the building to the public water or sewer line.

Development. Any manmade change in improved and unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, diking, berming, excavation, drilling operations, or storage of equipment or materials

Main. The major lines or pipes used to supply a service a number of customers or an entire area.

Public sewer. A sewer which all owners of abutting properties have equal rights, and is controlled by public entity.

Sanitary sewer. A sewer which carries sewage and to which storm, surface, and groundwaters are not admitted.

Service line. The pipe, fittings, valves, meter, meter box, and all other fixtures owned by the city and used to connect the customer's installation to the main.

Sewage. Water-carried wastes from residences, business buildings, institutions and industrial establishments.

Standard specifications. The City of Cape Girardeau standard specifications and drawings, as may be amended, on file with the city clerk.

(Ord. No. 4225, art. 3, 5-16-11)

Sec. 25-1103. In general; utilities.

(a) *Easements (utility and drainage).* All proposed developments shall have easements as determined by the city manager or his designee to be adequate for the installation and maintenance of utility facilities, including, at a minimum, utility easements ten (10) feet in width adjacent to the right-of-way of all streets and ten (10) feet in width across the rear of all lots adjacent to the rear lot lines. The city manager or his designee may also require additional utility easement width adjacent to side lot lines and adjoining each other to provide utility access between front lot and rear lot corridors. If an easement does not follow a property line, the easement shall not be less than twenty (20) feet in width. Easements shall comply with all other applicable city ordinances.

(b) *Excavations to be guarded by barricades, lights; damaged public property to be restored.* All excavations for any utility shall be adequately guarded with barricades and lights so as to protect the public from hazard. Any work within ROW shall be done in compliance with all other applicable city ordinances.

(c) *Owner to make connections prior to street pavement.* It shall be the duty of every person owning property fronting or abutting on any street or alley, before the street or alley is paved, to connect such property from the main to the property line, so that a connection, from the building/unit, can be made later without disturbing the pavement of such street or alley.

(Ord. No. 4225, art. 3, 5-16-11)

Sec. 25-1104. In general; water and sanitary sewer mains.

(a) *Design and construction standards.* The city shall establish and maintain design and construction specifications and standards for the installation of all mains and service lines. In the design of mains, standard specifications shall govern.

(1) All developments shall have an approved water and/or sanitary sewer system that provides adequate potable water and sewer service to each lot, if applicable. All systems shall be designed and constructed in accordance with applicable city ordinances and standard specifications, and regulations of the Missouri Clean Water Commission and Missouri Department of Natural Resources.

(2) Where an approved sewer system is within two hundred (200) feet, that meets the requirements of the city and the Missouri Department of Natural Resources, the developer shall connect with such system and provide adequate service lines to each lot.

(3) Water systems shall be designed to provide adequate fire flow within the development. If additional upgrades are required in the system, in order to achieve adequate flows, the developer shall absorb all costs associated with the upgrades, unless otherwise approved by the city manager.

(b) *Improvement plans.* See improvement plans section of chapter 25, article XIII.

(c) *Permit required.* No unauthorized person shall uncover, make any connections with or opening into, use, alter or disturb any public sewer or water line or appurtenance thereof, without first obtaining a written permit from the city manager or his designee.

(d)

Materials generally. All materials, of whatever nature, required in the construction of the work embraced shall be furnished by the contractor and shall be subject to inspection and standard testing by the city manager or his designee, before being placed. All rejected materials shall at once be removed from the project site.

(e) *Inspection.* An inspector shall be on the job at all times while pipe is being laid or before it is backfilled, and shall inspect the work as it progresses. It shall be the duty of the contractor to see that no pipes are backfilled in the absence of the inspector and any pipe laid may be removed and relaid before acceptance, as determined by the city manager or his designee.

(f) *Work in custody of developer until accepted by city.* Until work has been accepted by the city council, it shall be in the custody and under the charge and care of the developer. The developer shall rebuild, repair, restore, or make good, at his expense, any lost or stolen materials, and all injuries or damages to any portion of the work before its completion and acceptance, caused by the action of the elements or from any other reason.

(g) *Acceptance.* See improvement plans section of chapter 25, article XIII.

(h) *Extension of mains; generally.*

(1) The extension of sewer or water distribution mains may be initiated and made in one (1) of the following ways:

a. Any individual, groups of individuals, corporation, association, institution, club or other parties desiring to become customers of the public system, may upon approval of proper application and as otherwise herein provided, extend the city's mains. All extensions shall be wholly within the corporate city limits or the property to be served must be covered under an executed voluntary annexation agreement.

b. The city may install and extend mains essential to providing adequate service to an area.

c. The city council may declare the necessity for and direct the extension of mains as a public improvement.

(2) All applications for permission to make extensions shall be submitted in writing to the city manager or his designee, who shall approve or disapprove such application. The application shall clearly indicate the desired route and approximate length of the extension and that the applicant agrees to the following:

a. To construct the entire extension from the end of the existing main to and across the entire frontage, rear, side, or other dimension of the lot or tract to be served as determined by the city manager or his designee. Such extension shall be of pipe size, as determined by the city manager or his designee, which will provide adequate service to the area, but in no case shall the pipe size be less than eight (8) inches for sewer main extensions and eight (8) inches for water main extensions.

b. To locate and construct the extension in accordance with the regulations, standard specifications and requirements of the city, and under the inspection and direction of the city manager or his designee. The applicant shall provide the design, construction specifications, and materials list necessary for the extension.

c. Upon completion, and after passing final inspection and tests, to transfer ownership of the complete main extension to the city in consideration of its perpetual upkeep and maintenance. The city shall not be required to provide service or to perform maintenance on such main extension until after the transfer of ownership has been completed.

d. To assume the cost of the entire extension. Valves and fire hydrants shall be installed by the applicant at locations determined by the city manager or his designee. Valves and fire hydrants shall be in conformance with city standards and specifications.

e. The cost of system improvements such as additional pumping or storage equipment to provide adequate service to the area to be extended as required by the department is included in the costs assumed by the applicant, unless otherwise approved by the city manager.

(3) The city manager or his designee shall determine the priority of need and the location of mains to be installed by the city. Such determination shall consider the actual needs of the area to be served as well as the availability of funds. The city may install and extend mains under any of the following conditions:

a. Through an undeveloped area to bring service to a developed or developing area.

b. To provide an increase in volume or pressure to a developed area.

c. To close loops in the system to provide circulation and increased volume.

d. To connect and bring service to a system other than the city's for the purpose of taking over or acquiring such system.

e. For the purpose of replacing, to bring up to city standards, mains which are acquired from others.

f. Any other reason which, in the opinion of the city manager or his designee, is essential to providing adequate service to an area.

(4) Extension of mains as a public improvement may be paid for by special assessments in accordance with existing laws of the city and state, or from revenues of the utility service as directed by the city council.

(5) When a customer requests a connection to be made from main which has been installed at the sole expense of the city, such customer shall pay to the city a fee as outlined on the city fee schedule.

(6) Private water mains shall be prohibited.

(7) Private water wells in the city limits shall be prohibited, unless otherwise approved by the city manager. Existing private water wells will be allowed to remain until such time a change in use occurs unless otherwise approved by the city manager.

(i) *Relocation or adjustment of mains.* Relocation or adjustment in elevation of an existing main or appurtenances required because of changes proposed by a property owner or other private party shall be made under the direction and inspection of the city manager or his designee at no cost to the city.

(j) *Adjustment of elevation over existing mains.* Relocation or adjustment of an existing main or appurtenances required because of elevation changes over the existing main or appurtenances proposed by a property owner or other private party, shall be made under the direction and inspection of the city manager or his designee at no cost to the city.

(Ord. No. 4225, art. 3, 5-16-11; Ord. No. 4407, arts. 3, 4, 12-17-12)

Sec. 25-1105. In General; water and sanitary sewer connections.

(a) *Costs to be borne by owner.* All costs and expense incidental to the installation and connection of the building service line to the public main shall be borne by the owner. The owner shall indemnify the city from any loss or damage that may directly or indirectly be occasioned by the installation of the building service line.

(b) *Connections to conform to requirements of plumbing code.* The service line from the building/unit to the public main shall be of material meeting the specifications and construction methods as set out in the plumbing code of the city and standard specifications.

(c) *Penalty for violation of provisions.* Any owner, who shall fail to begin, after five (5) days' written notice served on him by anyone authorized to serve such notice, and to prosecute diligently to the completion the making of a connection as provided in section 29-39, or who shall violate any of the provisions of this article, shall be deemed guilty of a misdemeanor, and upon conviction shall be punished as prescribed in section 1-8 of this Code.

(d) *Separate building service lines required.* A separate and independent building service line shall be provided for every building/unit unless otherwise approved by the city manager or his designee.

(e) *Construction to conform to provisions of city building and plumbing codes.* The size, slope, alignment, materials of construction of a building service line and the methods to be used in excavating, placing of the pipe, joining, testing and backfilling the trench, shall all conform to the requirements of the building and plumbing code and/or the city standards and specifications.

(f) *Connections to conform to building, plumbing code requirements; exception.* The connection of the building service line into the public main shall conform to the requirements of the building and plumbing code or other applicable rules and regulations of the city. All such connections shall be made airtight and watertight. Any deviation from the prescribed procedures and materials must be approved by the city manager or his designee before installation.

(g) *City manager to inspect, supervise main connection to public main.* As soon as a connection of a main is ready to be made to an existing main, the party making such connection shall notify the city manager or his designee, giving a reasonable time in which inspection of same can be made. In the event that such connection has not been properly made in accordance with the provisions of this article, or any other ordinance of the city, it shall be unlawful for such party to make use of the main until the connection has been properly made and approved.

(h) *City manager to inspect, supervise building/unit connection to public main.* The applicant for the permit shall notify the city manager or his designee when the building/unit connection is ready for inspection and connection to the public main. The connection shall be made under the supervision of the city manager or his designee.

(Ord. No. 4225, art. 3, 5-16-11)

Sec. 25-1106. Sanitary sewer connections.

Wyes and mains shall comply with the regulations of the Missouri Clean Water Commission and the city, and shall be constructed under the observation and inspection of the city manager or his designee, and shall be accepted by the city council.

(a) *Sewers planned.* Where an approved public sanitary sewer is not within two hundred (200) feet, but where plans for installation of sanitary sewers in the vicinity of the development have been prepared and approved, the developer shall install sewers in conformity with such plans, although a connection to an existing main may not be immediately practicable as agreed to and approved by the city manager or his designee. In such cases, and until a connection is made with an approved public system, the use of a privately owned and maintained sewage treatment facility will be permitted, provided such disposal facilities are constructed in accordance with the

regulations and requirements of the Missouri Clean Water Commission and the zoning ordinance, and constructed under the observation and inspection of the city manager or his designee.

(b) *No sewers accessible.* Where no sewers are accessible, the developer shall install sewer lines and a disposal system in accordance with the requirements of the county health department.

(c) *Applicant to obtain location of sewer connection from city engineer.* Before proceeding with the work of making a connection of a sewer line to the public sewer, the applicant shall obtain the location of the wye branch for connection of the property from the office of the city engineer.

(d) *Permit required; issuance; fee.*

(1) It shall be the duty of every person before entering upon any street or alley, or easement granted to the city in the city, where public sewers have been constructed, and exist, for the purpose of connecting a building service line with the public sewers, or the repair of same, to obtain a written permit, which will authorize the applicant to connect such building service line with the public sewer. The permit shall be issued by city manager or his designee, upon approval of a written application made to the city by the applicant.

(2) The fee for such permit shall cover the cost of issuing the permit and subsequent inspection of the work as outlined on the city fee schedule.

(3) There shall be two (2) classes of building sewer permits:

a. For residential and commercial service, and

b. For service to establishments producing industrial wastes.

In either case, the owner or his agent shall make application on a special form furnished by the city. The permit application shall be supplemented by any plans, specifications or other information considered pertinent in the judgment of the city manager or his designee. A permit and inspection fee for a residential or commercial building sewer permit and for an industrial building sewer permit shall be paid to the city at the time the application is filed. Fee amounts are outlined on the city fee schedule.

(4) For the purpose of providing funds for sewer improvements, retirement of indebtedness for sewer improvements, and local matching funds for the state and federal grants, there is hereby authorized and directed to be charged and collected a sewer connection fee for every new facility hereinafter connected, directly or indirectly through other sewers to the sanitary sewer system of the city.

(5) Sewer connection fees for new facilities will be based on the size of the water tap serving such facility, as outlined on the city fee schedule.

(6) A new facility is defined as any facility which makes a new connection to city sewers, either directly or indirectly, or which increases its water tap size.

(7) Such sewer connection fees as established by this section shall be payable and collected in advance of the issuance of any permit to connect to such sanitary sewer system.

(8) Any new facility that pays a sewer connection fee pursuant to this section and later increases its water tap size will be subject to the appropriate fee as established herein for its new water tap size except that it shall receive credit

for sewer connection fees previously paid pursuant to this section for the smaller water tap size.

(9) The fees established herein are subject to change in accordance with the laws of the state.

(e) *Connections to surface water, groundwater sources prohibited.*

(1) Connections to sanitary sewers which terminate in basements of uncompleted buildings or buildings under construction shall be tightly stopped so as to prevent the entrance of surface water into the sanitary sewer. Uncovered basements collecting rainwater, or water from other sources, must be dewatered by the pumping of same. In no event may such water enter a sanitary sewer.

(2) Existing sewer connections to sanitary sewers, which carry water from roof drains, yard drains and uncovered areaways, shall be so altered as to permit the passage of sanitary sewage only. Roof drains shall be arranged to discharge on the surface of the ground a minimum of four (4) feet behind the right-of-way line on the owner's property.

(3) No person shall make connection of roof downspouts, exterior foundation drains, areaway drains or other sources of surface runoff or groundwater to a building service line or building drain which in turn is connected directly or indirectly to a public sanitary sewer.

(f) *Connections to public sewers in district outside property boundaries; requirements generally.*

(1) Any person owning a lot or parcel of land lying outside the boundaries of a sewer district in which a sanitary sewer has been constructed, may, upon written application to the city council, be permitted to connect such lot or parcel of land with such sewer upon payment to the required fee as outlined in the city fee schedule. In the case where several buildings are to be connected to a public sewer with a line of such size as is approved by the city engineer, the fee shall be the same for each building served. In the case of industrial buildings, for which application to connect to the public sewer is made, the city manager or his designee shall determine the amount of payment to be made, and it may further place certain restrictions on the use of such connection as concerns the volume and character of the sewage to be discharged into the public sewer.

(2) The person making the application and obtaining a permit to proceed with a connection shall pay the entire cost of all costs associated for such connection.

(3) The fee paid for the authority to make such connection shall in no way be taken as the purchase price of any vested right in such public sewer, but same shall be deemed and held as rental money for the sewer to which connection has been made, until such time as sewers shall be constructed in the district in which such connecting property lies, at which time the property shall be assessed its proportionate share of the cost of such construction as if the previous connection outside the district did not exist. Also, at the time such sewers are constructed no refund of the fee collected by the city shall be refunded, as same shall be used in the maintenance of the sewer system in which the connection was made.

(4) The city manager or his designee shall keep a special record showing all receipts and connections so made.

(5) The connections above described shall conform to all the provisions of this article.

(g) *Wye branches on public sewers to be used; exception.* The wye branches on the public sewer shall be used in all cases, unless written permission is obtained from the city manager or his designee to make a connection at a different location.

(h) *Damaged wye branches; replacement.* When a wye branch on the public sewer is damaged during the work of connecting to same, it shall be removed and replaced as directed by the inspector, with a new section of pipe of the same diameter and meeting standard specifications, and inspected by an authorized inspector. All costs shall be borne by the developer.

(i) *Old building sewers; when permitted.* Old building sewers may be used in connection with new buildings only when they are found, on examination and test by the city manager or his designee, to meet all requirements of this article.

(j) *Elevation requirements.* Whenever possible, the building service line shall be brought to the building at an elevation below the basement floor. In all buildings in which any building drain that is too low to permit gravity flow to the public sewer, sanitary sewage carried by such building drain shall be lifted by an approved means and discharged to the building service line. Such means shall be owned and maintained by the property owner.

(Ord. No. 4225, art. 3, 5-16-11)

Sec. 25-1107. Water connections.

Taps and mains shall comply with the regulations of the Missouri Department of Natural Resources and the city, and shall be constructed under the observation and inspection of the city manager or his designee, and shall be accepted by the city council.

(a) *Permit required; issuance; fee.*

(1) It shall be the duty of every person before entering upon any street or alley, or easement granted to the city in the city, where public water mains have been constructed, and exist, for the purpose of connecting a building water line with the public water main, or the repair of same, to obtain a written permit, which will authorize the applicant to connect such building water line with the public water main. The permit shall be issued by city manager or his designee, upon approval of a written application made to the city by the applicant.

(2) The fee for such permit shall cover the cost of issuing the permit and subsequent inspection of the work as outlined on the city fee schedule.

(3) The water connection fee for making a tap onto a public water main is based on the size of the water tap serving the facility, as outlined on the city fee schedule.

(Ord. No. 4225, art. 3, 5-16-11)

Sec. 25-1108. Stormwater.

Storm sewers. Storm drainage improvements consisting of storm sewers or open channels shall adequately drain the areas being developed. The design of drainage improvements shall be coordinated to the extent possible with present and probable future improvements so as to form part of an integrated system. Adequate provisions shall be made for the disposal of stormwater, in

accordance with the specifications and standards of the city, and subject to the inspection and approval of the city manager or his designee.

(Ord. No. 4225, art. 3, 5-16-11)

Sec. 25-1109. Private utilities.

Underground wiring. All electric, cable and telephone distribution lines shall be installed underground, except those overhead distribution feeder lines necessary to serve the development and in locations as approved by the city manager or his designee. Cable switching enclosures, pad-mounted transformers, and service pedestals may also be installed aboveground and may be installed as a part of the street lighting standards where approved by the city manager or his designee. Private utilities shall be in accordance with all other applicable city ordinances.

(Ord. No. 4225, art. 3, 5-16-11)

Secs. 25-1110—25-1200. Reserved.

Cape Girardeau, Missouri, Code of Ordinances >> PART II - CODE OF ORDINANCES >> Chapter 25 - DEVELOPMENT CODE >> ARTICLE XII. SUBDIVISIONS >>

ARTICLE XII. SUBDIVISIONS

Sec. 25-1201. Short title.
Sec. 25-1202. Definitions.
Sec. 25-1203. Authority.
Sec. 25-1204. Jurisdiction.
Sec. 25-1205. Purpose.
Sec. 25-1206. Separability.
Sec. 25-1207. Amendments.
Sec. 25-1208. Approval of subdivision plats.
Sec. 25-1209. Vacation of subdivisions.
Sec. 25-1210. Variances and exceptions.
Sec. 25-1211. Minor subdivisions.
Sec. 25-1212. Platting exceptions.
Sec. 25-1213. Administration.
Sec. 25-1214. Appeals.
Secs. 25-1215—25-1225. Reserved.
Sec. 25-1226. Submission of preliminary plat.
Sec. 25-1227. Review of preliminary plat by commission.
Sec. 25-1228. Review of preliminary plat by council.
Sec. 25-1229. Sectionalizing.
Sec. 25-1230. Submission of record plat.
Sec. 25-1231. Filing of record plat.
Sec. 25-1232. Requirements of record plat.
Sec. 25-1233. Subdivision review fees.
Secs. 25-1234—25-1249. Reserved.
Sec. 25-1250. Single-family residential lot design standards.
Sec. 25-1251. Multifamily dwelling unit subdivision design standards.

Sec. 25-1252. Cluster subdivisions.
Secs. 25-1253—25-1299. Reserved.

Sec. 25-1201. Short title.

These regulations shall hereafter be known, cited and referred to as "The Subdivision Regulations of the City of Cape Girardeau, Missouri."

(Ord. No. 4225, art. 4, 5-16-11)

Sec. 25-1202. Definitions.

As used in this chapter the following definitions apply:

Area means the incorporated area of the city and any future annexations thereto, and any area over which the city exercises legal zoning regulatory power commonly referred to as extraterritorial zoning authority.

Benchmark means a definite point of known elevation and location and of more or less permanent character.

Block means an area of land surrounded by public highways, streets, streams, railroad rights -of-way, parks or other similar areas or facilities.

Building line means a line on a plat between which line and the street right-of-way no portion of the building may be erected, excluding landings, open balconies and roof overhangs, subject, however, to the further requirements of the zoning ordinance.

City means the City of Cape Girardeau, Missouri.

Collector street. See *Street, collector.*

Commission means the planning and zoning commission of the city.

Common land means that land set aside for open space or recreational use for the owners of the residential lots in a subdivision, which land is conveyed by the developer in fee simple absolute title by a warranty deed to trustees whose trust indenture shall provide that such common land be used for the sole benefit, use and enjoyment of the lot owners present and future, and shall further provide that no lot owner shall have the right to convey his interest in the common land except as an incident of the ownership of a regularly platted lot in the subdivision.

Comprehensive plan means a plan or any portion thereof for the coordinated development of the city, adopted by the planning and zoning commission, pursuant to RSMo Chapter 89.

Dead-end street means a street having only one (1) end open for vehicular traffic and the other permanently terminated by a turnaround for vehicles.

Developer means that person by whom a tract will be subdivided or improved pursuant to the requirements of this chapter.

Development means any man-made change in improved and unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, diking, berming, excavation, drilling operations, or storage of equipment or materials.

Easement means a grant by a property owner to the public, a corporation, or a person of the use of land for a specific purpose, such as road maintenance and improvements, installation of sewers and utilities.

Engineer means a professional engineer registered in the state.

Escrow agent means a title company, bank, savings and loan association, trust company, attorney or any other person or agency approved by the city council to act as escrow agent under the provisions of this chapter.

Floodplain means a geographic area susceptible to periodic inundation from overflow of natural waterways and determined as to extent by the city council, and any further revisions thereto.

Frontage means that edge of a lot bordering a street.

Highway. See *Street.*

Improvement means street pavement, sidewalk grading, sidewalk pavement if included by developer, pedestrianway pavement, water mains, storm sewers, sanitary sewers, signs, monuments or other similar items.

Improvement plans means the engineering drawings showing types of materials and construction details for the physical structures and facilities, excluding dwelling units to be installed in conjunction with the development of the subdivision.

Land surveyor means a land surveyor registered in the state.

Local street. See *Street, local.*

Lot means a platted parcel of land intended to be separately owned, developed or otherwise used as a unit.

Lot area means the total horizontal area within the boundaries of a lot exclusive of any area designated for street purposes.

Lot, corner, means a lot abutting upon two (2) or more streets at their intersection.

Lot, double frontage, means a lot having frontage on two (2) nonintersecting streets, as distinguished from a corner lot.

Minor subdivision. See *Subdivision, minor.*

Record plat means that subdivision plat containing the signature of the city clerk which designates final approval by the city council and is recorded in the office of the county recorder of deeds.

Road. See *Street.*

Slope means the rate of deviation of the ground surface from the horizontal surface, as expressed in percentages.

Street means all property dedicated for public or private street, highway, freeway or roadway purposes or subject to public or private easement therefore.

Street, arterial, means a street or road of considerable continuity which serves or is intended to serve as principal trafficway between separate areas or districts and which is the main means of access to the collector street system, highways, and expressways.

Street, collector, means streets, which in addition to servicing abutting properties, intercept local streets, connect with community facilities and carry neighborhood traffic to the arterial street systems.

Street, local, means streets designated to provide access to abutting property from collector and arterial streets.

Street, service or frontage, means a local street generally parallel to and adjacent to arterial streets and highways, which provides access to abutting properties and protection from through traffic.

Subdivision means either or both of:

(a) A division or redivision of a tract into lots, plats, or sites; or
(b) The dedication or establishment of a street, alley, pedestrian or public way in conjunction with or used in any such tract.

Subdivision, minor, means the division of land into not more than four (4) lots shall be classified as a minor subdivision provided:

(a) That the proposed subdivision of land does not include an improvement within a street right-of-way, other than concrete sidewalks, grading, monuments and water mains.
(b) That the proposed subdivision of land does not include a provision for a public area or public facility.
(c) That the proposed subdivision of land does not adversely affect the development of the parcel proposed for subdivision as well as the adjoining property.
(d) That the proposed subdivision of land is not in conflict with any provision of the city's zoning ordinance or this chapter.

Surety company means an insurance company qualified and acting under the provisions of RSMo Chapter 379, which has met the requirements of RSMo § 379.020 and which is approved by the city council to act as surety under this chapter.

Title company means a corporation qualified and acting under the Missouri Title Insurance Law or a corporation which is an issuing agency for an insurance company insuring land titles.

Tract means an area or parcel of land which the developers intend to subdivide or improve, or to cause to be subdivided or improved, pursuant to the requirements of this chapter.

Zoning ordinance means chapter 30 of this Code, as amended, from time to time, which controls and regulates zoning in the city and other areas zoned by the city pursuant to state statutes.

(Ord. No. 4225, art. 4, 5-16-11)

Sec. 25-1203. Authority.

By authority of the ordinances of the city council, adopted pursuant to the powers and jurisdictions vested through RSMo §§ 89.140 and 89.410 and other applicable laws, statutes, ordinances and regulations of the state and the city, the city council adopts these regulations to govern the subdivision of land, exercises the power and authority to review, approve and disapprove plats for subdivision of land within the incorporated areas of the city and any areas subject to extraterritorial zoning regulation by the city which show lots, blocks or sites with or without new streets or highways. By the same authority the city council exercises the power and authority to pass and approve the development of plat subdivision of land already approved by the city council or the county court if such plats are entirely or partially undeveloped. Such a plat will be considered to be entirely or partially undeveloped if:

(a) The plat has been recorded with the county recorder of deeds office prior to the annexation of the property, and by the city; and

(b) Less than forty (40) percent of the total platted lot area has been developed.

(Ord. No. 4225, art. 4, 5-16-11)

Sec. 25-1204. Jurisdiction.

These subdivision regulations shall apply to all subdivisions of land located within the incorporated areas of the city or within any area subject to extraterritorial zoning regulation by the city.

(Ord. No. 4225, art. 4, 5-16-11)

Sec. 25-1205. Purpose.

The purpose of this article is to control the division of land within the incorporated area of the city and within any area subject to extraterritorial zoning regulation by the city in order to promote the public health, safety, and general welfare of the area by regulating the division of land in order to lessen congestion in the streets and highways; to further the orderly development and appropriate use of land; to establish accurate records of land subdivisions; to protect land title; to implement the master plan of the city; to secure safety from fire and other dangers; to facilitate adequate and coordinated provision for transportation, water, sewerage, schools, parks, playgrounds, and other public requirements; to facilitate the further division of larger tracts into smaller parcels of land; and, in general, to facilitate the orderly, coordinated, efficient and economic development of the city and the area.

(Ord. No. 4225, art. 4, 5-16-11)

Sec. 25-1206. Separability.

If any part or provision of these regulations or application thereof to any person or circumstances is adjudged invalid by any court of competent jurisdiction, such judgment shall be confined in its operation to the part, provision or application directly involved in the controversy to which such judgment was rendered and shall not affect or impair the validity of the remainder of these regulations or the application thereof to other persons or circumstances. The city council hereby declares that it would have enacted the remainder of these regulations even without any such part, provision or application.

(Ord. No. 4225, art. 4, 5-16-11)

Sec. 25-1207. Amendments.

(a) For the purpose of providing for or protecting the public health, safety and general welfare, the city council may from time to time amend the provisions imposed by these subdivision regulations. Public hearings on all proposed amendments shall be held by the city council in the manner prescribed by state statute and city ordinance.

(b) Approval of a preliminary plat shall exempt that subdivision from subsequent amendments to these subdivision regulations, providing the record plat is filed within the time specified by the city council in its approval of the preliminary plat.

(Ord. No. 4225, art. 4, 5-16-11)

Sec. 25-1208. Approval of subdivision plats.

Every subdivision of land within the area shall be shown upon a plat and submitted first to the commission for its recommendation for approval or disapproval, and then to the city council for its approval or disapproval. All final record plats shall be submitted first to the commission for its recommendation and then to the city council for its consideration and approval or disapproval. All subdivision plats, whether sketch, preliminary or final, shall also be subject to review by the city manager. No plat shall be recorded in the office of the recorder of deeds and no lots shall be sold from such plat unless and until such plat is approved as provided in this article.

(Ord. No. 4225, art. 4, 5-16-11)

Sec. 25-1209. Vacation of subdivisions.

Whenever any person may desire to vacate any subdivision or part thereof in which he shall be the legal owner of all of the lots or may desire to vacate any lot, such person may petition the city council giving a distinct description of the property to be vacated and the names of the persons to be affected thereby; which petition shall be filed together with a filing fee as established in the fee schedule. The city council may act upon such petition under the same procedures as set forth in this article for the establishment of subdivisions.

(Ord. No. 4225, art. 4, 5-16-11)

Sec. 25-1210. Variances and exceptions.

(a) *General.* Where the city council finds that extraordinary hardships or practical difficulties may result from strict compliance with these regulations, it may approve variances or exceptions to these subdivision regulations so that substantial justice may be done and the public interest secured, provided that such variance or exception shall not have the effect of nullifying the intent and purpose of these regulations; and further provided, the city council shall not grant variances unless it shall make findings based upon the evidence presented to it in each specific case that:

(1) The granting of the variance will not be detrimental to the public safety, health or welfare or injurious to other property or improvements in the neighborhood in which the property is located.

(2) The conditions upon which the request for a variance is based are unique to the property for which the variance is sought, and are not applicable generally to other property.

(3)

Because of the particular physical surroundings, shape or topographical conditions of the specific property involved, a particular hardship to the owner would result, as distinguished from a mere inconvenience, if the strict letter of these regulations are carried out.

(4) The variance will not in any manner vary the provisions of the zoning ordinance, master plan or major street plan.

(b) *Conditions.* In granting variances and exceptions, the city council may require such conditions as will, in its judgment, secure substantially the objectives or requirements of these regulations.

(c) *Procedures.* A petition for any such variance shall be submitted in writing by the developer at the time when the preliminary plat or record plat is filed for the consideration of the commission. The petition shall state fully the grounds for the application and all of the facts relied upon by the petitioner. Approval of the record plat by the city council shall constitute approval of any variances incorporated therein.

(Ord. No. 4225, art. 4, 5-16-11)

Sec. 25-1211. Minor subdivisions.

The city manager may waive the requirement of submission of all other plans except the record plat, when considering minor subdivisions.

(Ord. No. 4225, art. 4, 5-16-11)

Sec. 25-1212. Platting exceptions.

Recording of a subdivision plat shall not be required in case of the sale or exchange of parcels of land between owners of adjoining properties for the purpose of adjustments in boundaries, provided that additional lots are not thereby created, that the original lots are not reduced below the minimum size required by this article or the zoning ordinance, and there are no changes in easements or utility lines.

(Ord. No. 4225, art. 4, 5-16-11)

Sec. 25-1213. Administration.

The city manager may adopt, amend and publish rules and instructions within the intent of this article for the administration of this article to the end that the public be informed and that approval of plats is expedited.

(Ord. No. 4225, art. 4, 5-16-11)

Sec. 25-1214. Appeals.

Decisions of the city manager relating to any matter covered in these regulations may be appealed to the city council by written petition stating the basis for such appeal and the specific relief sought.

(Ord. No. 4225, art. 4, 5-16-11)

Secs. 25-1215—25-1225. Reserved.

Sec. 25-1226. Submission of preliminary plat.

If a project is going to be developed in multiple phases, the developer shall prepare and submit first to the commission and then to the city council such number of copies of a preliminary plat of the tract as shall be required by the development manual. Such preliminary plat shall be submitted after receipt of the commission's report on the sketch plan, if a sketch plan was submitted. The preliminary plat shall be prepared at any scale from one (1) inch equals twenty (20) feet through one (1) inch equals two hundred (200) feet, so long as the scale is in an increment of ten (10) feet and shall contain the information required by the development manual.

(Ord. No. 4225, art. 4, 5-16-11)

Sec. 25-1227. Review of preliminary plat by commission.

The commission shall review the preliminary plat as soon as practicable, and:

(a) If the preliminary plat is satisfactory, the secretary of the commission shall forward it to the city council together with the recommendation of the commission for approval.

(b) If the preliminary plat is unsatisfactory, the commission shall give notice to the submitting party in writing, setting forth the conditions causing the disapproval, and the unsatisfactory conditions shall be remedied prior to further consideration by the commission.

(c) If the unsatisfactory conditions are not remedied within thirty (30) days of such notice, the secretary of the commission shall forward the preliminary plat to the city council together with the recommendation of the commission for:

(1) Disapproval; or

(2) Conditional approval based on correction of specific unsatisfactory conditions.

(d) If no recommendation from the commission is received by the city council within forty-five (45) days of date of submission of preliminary plat to the commission, and no adverse report has been given to the submitting party by the commission, it shall be assumed to have been approved, and the city council may proceed with their review of the preliminary plat in accordance with section 25-1228

(e) Whenever a preliminary plat includes a proposed establishment of common land, a trust indenture shall be recorded simultaneously with the record plat which shall provide for the proper and continuous maintenance and supervision of such common land by trustees to be selected and to act in accordance with the terms of such indenture and the common land shall be deeded to the trustees under such indenture by general warranty deed. Any alteration of the common land or improvement will require the submission of detailed improvement plans and will be considered a required improvement.

(Ord. No. 4225, art. 4, 5-16-11)

Sec. 25-1228. Review of preliminary plat by council.

The city council shall review the preliminary plat as soon as practicable after receipt of the report of the commission, and:

(a) If the plat is satisfactory, the city clerk upon direction from the city council shall thereupon affix a notation of approval, date of approval, the signature of the city clerk and the seal of the city on the plat, denoting satisfactory compliance with the

requirements of this article. The plat shall be returned to the developer who may then proceed in accordance with article XIII, site plans and improvements plans, of this chapter 25

(b) If the preliminary plat is unsatisfactory, the city council shall give notice to the submitting party in writing, setting forth the conditions causing the disapproval, and the unsatisfactory conditions shall be remedied prior to further consideration by the city council.

(c) The approval by the city council of the preliminary plat shall be valid for a period of two (2) years from the date of approval, or such longer period, up to a maximum of five (5) years, as the city council may determine to be advisable if after review by the city council such longer period is necessary to facilitate adequate and coordinated provisions for transportation, water, sewerage, schools, parks, playgrounds, or other public requirements. If no record plat of a subdivision of any part of the tract for which a preliminary plat has been approved is recorded within such two-year period, or such longer period as the city council shall permit, a resubmission and review thereof by the commission and the city council may be required.

(Ord. No. 4225, art. 4, 5-16-11)

Sec. 25-1229. Sectionalizing.

After approval of the preliminary plat by the city council, the developer shall be permitted to divide the plat into two (2) or more sections in a manner to assure orderly development of the subdivision. In the event of such sectionalizing:

(a) The performance bond or escrow agreement shall be in such amount as is commensurate with the section or sections of the plat for which improvements will be installed or guaranteed and for which a separate record plat will be filed.

(b) Submission of bond or escrow agreement assuring improvements in the remaining sections may be deferred until such time as the developer proposes to submit a record plat of such deferred section or sections.

(c) Dedication of streets, easements and public improvements must be made in each section for which a record plat is submitted, but may be deferred in the remaining sections until such time as a record plat is submitted for any such deferred section or sections.

(d) A record plat may be submitted to the city council for each section for which improvements have been installed or guaranteed and if approved by the city council shall be filed with the county recorder of deeds.

(e) Each such section shall contain at least ten (10) percent of the total number of lots or at least eight (8) lots, whichever is greater in the approved preliminary plat, unless specifically authorized by the city manager.

(f) A record plat of the initial section must be submitted for approval within two (2) years of the date of approval of the preliminary plat, or resubmission and review of the preliminary plat by the commission and the city council may be required.

(g) If a record plat is approved for a section or sections of the approved preliminary plat within two (2) years of the date of approval of the preliminary plat, approval of the remaining sections of such preliminary plat shall be valid for a period of five (5) years from the date of approval of the preliminary plat by the city council.

(Ord. No. 4225, art. 4, 5-16-11)

(e) The minimum width required for a lot fronting on a circular turnaround may be measured along a line parallel to the street right-of-way, at a distance from the street right-of-way line equal to the depth of the required front yard plus ten (10) feet.

(f) The minimum width at the right-of-way line for lots fronting on a circular turnaround shall be not less than thirty-six (36) feet.

(g) Side lot lines shall be at right angles to straight streets and radial to curved streets, except when such radial lot lines detract from the desirability of the lot.

(h) Corner lots for residential use shall have adequate width to permit appropriate building lines from both streets.

(Ord. No. 4225, art. 4, 5-16-11)

Sec. 25-1251. Multifamily dwelling unit subdivision design standards.

(a) Buildings housing multifamily dwelling units need not front or abut directly on a street, providing that suitable access and easements are provided for both vehicular and pedestrian traffic.

(b) Buildings housing multifamily dwelling units should be located a minimum of thirty (30) feet from any other structure. Adequate emergency access shall be provided for each building.

(Ord. No. 4225, art. 4, 5-16-11)

Sec. 25-1252. Cluster subdivisions.

(a) *Purpose.* Cluster subdivisions may be approved according to the provisions of this section to preserve environmentally sensitive areas and open space. The intent of this section is to authorize a developer to decrease lot sizes and leave the land in natural conservation areas, thereby lowering development costs and increasing the amenity of the project without increasing the density beyond what would be permissible if the land were subdivided into the size of lots required by the underlying zoning district.

(b) *Applicability.* A developer may create a cluster subdivision in a standard residential zoning district which includes lots that are smaller and arranged differently than those required by the underlying zoning district regulations if the application conforms to this section.

(c) *Project size and density.* There is no minimum or maximum acreage limitation for a cluster subdivision. The maximum allowable residential density shall not exceed the maximum density allowed in the underlying zoning district, except as provided for in this section.

(d) *Lot dimensions and setback requirements.* There are no prescribed minimum lot dimensions. Lot widths and depths shall be sufficient to accommodate the use and minimum building setbacks required in the underlying zoning district.

(e) *Required open space.* The amount of open space which must be set aside in cluster subdivisions shall be based on the difference between the total area contained within all cluster lots and the total area which would have been contained within an equivalent number of standard lots based on the density allowed in the underlying zoning district.

(f) *Open space standards.* The developer shall provide for the ownership and continued maintenance of all open space by one (1) of the methods stated below. City approval of the form of dedication or conveyance shall be required.

(1) Offer to dedicate land for public use; or

(2) Convey open space to be held in common by an organization established by the applicant and approved by the city. The applicant shall submit covenants and restrictions regarding permanent maintenance of the open space, including provisions

addressing: maintenance duties of the organization; the manner in which lot owners will be assessed by the organization; conditions of default; and the manner of enforcement by the city.

(g) *Open space allocation.* Open space shall be provided for each phase of a development. If common open space will not be provided proportionally by phase, the applicant shall execute a reservation of common open space by grant of an easement or covenant in favor of the city, authorizing the city to dedicate all or a portion of such reserved area to common open space in the event that the development is not completed.

(h) *Open space design and improvements.* Open space areas shall be linked to existing and planned public open space and trail systems wherever possible. Open space shall be arranged to maximize access and use by residents of the cluster subdivision. Where open space improvements are provided, a safe, secure and barrier-free system of trails, paths, walkways and bikeways shall be designed. Improvements may include paved pedestrian paths located in public rights-of-way or permanent access easements.

(i) *Increased density.* An increase in the maximum density allowed in the underlying zoning district may be approved for a cluster subdivision if one (1) or more of the following requirements are met:

(1) The preservation of a significant natural resource;

(2) The provision of more than twenty-five (25) percent of the subdivision as open space;

(3) The dedication to the city of public parkland that has been deemed to be desirable by the city.

The increase in density shall generally be related to the significance and/or size of the open space, natural resource or parkland associated with the cluster subdivision.

(Ord. No. 4225, art. 4, 5-16-11)

Secs. 25-1253—25-1299. Reserved.

Cape Girardeau, Missouri, Code of Ordinances >> PART II - CODE OF ORDINANCES >> Chapter 25 - DEVELOPMENT CODE >> ARTICLE XIII. SITE PLANS AND IMPROVEMENT PLANS >>

ARTICLE XIII. SITE PLANS AND IMPROVEMENT PLANS

Sec. 25-1300. General.
Sec. 25-1301. Applicability.
Sec. 25-1302. Site plans.
Sec. 25-1303. Improvement plans.
Sec. 25-1304. Inspection fees.
Sec. 25-1305. As-built drawings of improvements.
Sec. 25-1306. Performance and maintenance bond.
Sec. 25-1307. Acceptance and final approval.
Sec. 25-1308. Improvements to be installed or guaranteed.
Sec. 25-1309. Bond.
Sec. 25-1310. Escrow agreement.
Sec. 25-1311. Term of bond or escrowed sum.
Sec. 25-1312. Extensions, termination of bond or escrow agreement.
Sec. 25-1313. Approval of escrow agents and sureties.

Sec. 25-1300. General.

(a) *Development* means any manmade change in improved and unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, diking, berming, excavation, drilling operations, or storage of equipment or materials.

(b) *Site plan* intended to provide an overview of the applicant's proposed land development. The site plan will be used to determine if the proposed development is in compliance with the city's current ordinances and regulations, as well as any other applicable state or federal requirements. The site plan shall include the location of all proposed structures, the location and availability of public infrastructure, such as streets, water lines, and sewer lines and information regarding compliance with zoning ordinance and development code requirements.

(c) *Improvement plan* provides details regarding public infrastructure improvements required for a proposed development. These improvements may include, but are not limited to, water mains, sanitary sewer mains, and public streets.

(Ord. No. 4225, art. 5, 5-16-11)

Sec. 25-1301. Applicability.

A site plan shall be submitted prior to the development of property in the city. The site plan shall be drawn to scale and include information regarding the development as may be required by the city manager. If a proposed development includes any public infrastructure, such as streets, water or sewer mains, improvement plans shall be submitted prior to the development of the property.

(Ord. No. 4225, art. 5, 5-16-11)

Sec. 25-1302. Site plans.

(a) *Submission of site plans.* Site plans for the development of a property shall be submitted for review to the city manager and shall contain the information required by the development manual.

(b) *Review of site plans.* The procedure for reviewing site plans shall be as follows:

(1) The plans shall be reviewed by the city manager. Corrections or additions shall be made, if needed, and when the plans are satisfactory, approval shall be given by the city manager.

(2) Complete approval of the plans and payment of fees as outlined in the fee schedule constitute authority to start construction.

(c) *Approval of site plans.* Approval by the city manager of a site plan shall be valid for a period of two (2) years from the date of such approval, or for such longer period, up to a maximum of five (5) years, as the city manager may determine to be advisable if after review by the city manager such longer period is necessary.

(Ord. No. 4225, art. 5, 5-16-11)

Sec. 25-1303. Improvement plans.

(a) *Submission of improvement plans.* Improvement plans for the construction of any public infrastructure necessary for a development shall be submitted for review to the city manager and shall contain the information required by the development manual.

(b)

Review of improvement plans. The procedure for reviewing improvement plans shall be as follows:

(1) The plans shall be reviewed by the city manager. Corrections or additions shall be made, if needed, and when the plans are satisfactory, approval shall be given by the city manager.

(2) Complete approval of the plans and payment of fees as outlined in the fee schedule constitute authority to start construction or to post bond or escrow to cover the cost of improvements.

(c) *Approval of improvement plans.* In the design of any public infrastructure, the design standards of the city's standard specifications shall be followed and the plans shall be prepared by a professional engineer registered in the State of Missouri. Plans for new public improvements such as, but not limited to, water or sanitary sewer systems, shall show the size, number and location of all new connections and shall comply with all the provisions of the City Code. Approval by the city manager of the improvement plans shall be valid for a period of two (2) years from the date of such approval, or for such longer period, up to a maximum of five (5) years, as the city manager may determine to be advisable if after review by the city manager such longer period is necessary to facilitate adequate and coordinated provisions for transportation, water, sewerage, or other public infrastructure. If the construction of the improvements have not been completed within the two-year period or such longer period as the city manager may permit, a resubmission and review of the improvement plans by the city manager may be required.

(Ord. No. 4225, art. 5, 5-16-11)

Sec. 25-1304. Inspection fees.

The city shall also collect inspection fees as established by the fee schedule, based upon the city manager's estimate of time required to inspect any necessary public improvements. The city shall be entitled to full compensation for the time consumed in making such inspections. If the estimated fee is inadequate, the necessary additional fees shall be collected by the city after the inspections are completed; and if the estimated fee is in excess of the amount actually expended, the balance shall be refunded by the city. Claims for such refunds shall be made to the city in writing and shall be paid when audited and approved by the city manager.

(Ord. No. 4225, art. 5, 5-16-11)

Sec. 25-1305. As-built drawings of improvements.

After the improvements have been constructed and installed, but before the city manager recommends final approval or acceptance, the developer shall submit the required number of as-built drawings of such improvements. A copy of the final as-built drawing shall also be submitted to the city in digital exchange format.

(Ord. No. 4225, art. 5, 5-16-11)

Sec. 25-1306. Performance and maintenance bond.

A bond as described in this city ordinance shall be required before any work is performed as defined in improvement plans of this article. Except as may be otherwise required by law, the developer shall at all times during the term of construction and through acceptance and final approval by city council, and for four (4) years thereafter, maintain a performance and maintenance

bond in a form approved by the city attorney. The amount of the bond will be the value of the development as determined by the city manager for a term consistent with the length of construction and through acceptance and final approval by city council plus four (4) additional years, conditioned upon this developer's faithful performance of the provisions, terms and conditions conferred by this city ordinance. The city shall be entitled to recover under the terms of such bond the full amount of any loss and damage occasioned from violation of any work performed not approved by the city manager or his designee. Any person performing work in improvement plans of this article shall guarantee such work for a period of four (4) years.

(Ord. No. 4225, art. 5, 5-16-11)

Sec. 25-1307. Acceptance and final approval.

Before the developer's obligation to the city is terminated, all required improvements shall be constructed under the observation and inspection of the city manager. The city council shall accept the improvements for city maintenance.

(Ord. No. 4225, art. 5, 5-16-11)

Sec. 25-1308. Improvements to be installed or guaranteed.

After the improvement plans have been approved and all inspection fees paid, but before approval of the record plat and before any lots are sold, the developer shall either:

(a) Complete the improvements in accordance with the approved improvement plans under the observation and inspection of the city manager; or

(b) Post a bond or enter into an escrow agreement in accordance with the provisions hereafter set forth. The bond or escrow agreement shall be prepared and executed on forms furnished by the city and shall be submitted to the city council for approval or disapproval. Such forms shall be reviewed by the city manager prior to being sent to the city council.

(Ord. No. 4225, art. 5, 5-16-11)

Sec. 25-1309. Bond.

A bond shall be valid only if issued by a surety company or title insurance company and shall insure or guarantee, to the extent of the amount specified by the city manager in his estimate of the cost thereof, the construction and completion of the improvements shown by the approved improvement plans.

(Ord. No. 4225, art. 5, 5-16-11)

Sec. 25-1310. Escrow agreement.

An escrow agreement shall provide that there shall be deposited with the escrow agent to be held in a special escrow account by the escrow agent, subject to audit by the city:

(a) A cash amount which shall be not less than the amount specified by the city manager in his estimate of the cost of the improvements as reflected by the approved improvement plans; or

(b)

An irrevocable letter of credit or commitment from a lending institution approved by the city council to the escrow agent guaranteeing to such escrow agent the availability, from time to time upon demand, of a sum which shall be not less than the amount specified by the city manager in his estimate of the cost of the improvements as reflected by the approved improvement plans; or

(c) Certificates of deposit, treasury bills or other readily negotiable instruments, the type of which has been approved by the city council, endorsed to the escrow agent and the cash value of which shall be in an amount not less than the amount specified by the city manager in his estimate of the cost of the improvements as reflected by the approved improvement plans.

The escrow agent may be an officer or employee of a lending institution issuing the commitment referred to in subsection (b) above, providing adequate provision is made to assure his legal obligation to the city.

(Ord. No. 4225, art. 5, 5-16-11)

Sec. 25-1311. Term of bond or escrowed sum.

The bond shall remain in effect or the escrowed sum shall be held in the escrow account by the escrow agent, as the case may be, until such time as the city council shall, by written authorization to the surety or escrow agent, release the surety from the obligation of the bond or the escrow agent from his obligation to retain the escrowed sum in the escrow account, which release may be partial and may occur from time to time, as improvements are completed and approved; provided, however:

(a) The city council shall release the surety or escrow agent from all or any part of its obligation only upon receipt of the requisite written notification from the city manager; and

(b) In no case shall the city council authorize the release of more than ninety-five (95) percent of the amount held as the bond or escrow sum until such improvements have been completed in a satisfactory manner, approved by the city manager and accepted or approved by the city council.

(Ord. No. 4225, art. 5, 5-16-11)

Sec. 25-1312. Extensions, termination of bond or escrow agreement.

The term of the bond or the escrow agreement shall not exceed two (2) years in duration subject to the following:

(a) If, at the end of the two-year period, all the improvements reflected by the approved improvement plans have not been completed, the city council may grant an extension of the term of the bond or the escrow agreement for a period not to exceed one (1) additional year at each extension if after review by the city council such longer period is deemed to be in the public interest. If such improvements have not been completed at the end of the two-year period or the extended period authorized by the city council, the city council may:

(1) Require the surety to perform on the bond and pay to the city such amount as shall be equal to the lesser of the amount required to complete the improvements or the amount of the bond not theretofore released; or

(2)

Require the escrow agent or remit to the city in cash or negotiable instruments constituting the escrow sum, as the case may be, the balance in the escrow account required to complete the improvements and the balance, if any, in the escrow account which exceeds such amount shall be returned to the developer; or

(3) Require the developer to submit a new bond or escrow agreement which has been recalculated in order to allow for any inflation in the cost of constructing the approved improvements.

(b) If the surety fails to perform on the bond or the escrow agent fails to remit the amount required within thirty (30) days after written request, the city attorney is authorized to take immediate action to require performance by the surety under the bond or to secure the payment by the escrow agent of the amount required.

(Ord. No. 4225, art. 5, 5-16-11)

Sec. 25-1313. Approval of escrow agents and sureties.

To be eligible all escrow agents and sureties shall be approved by the city council. All escrow agents and sureties shall be subject to spot audits by the city. If the escrow agent or surety fails to comply with any of the provisions of the escrow agreement or the bond, the escrow agent or surety shall not thereafter be allowed to act as escrow agent or surety for any improvement in the city or the area for a period of two (2) years.

(Ord. No. 4225, art. 5, 5-16-11)

CITY of CAPE GIRARDEAU

STORMWATER MANAGEMENT PLAN

A Continuing Program for Water Quality Improvement 2013 – 2018

NOV 25 2013

Book 2 of 2

Appendix 3

City Code Chapters

(Continued)

Chapter 29 Sewer Ordinance

ARTICLE I. SANITARY SEWER

DIVISION 1. - GENERALLY
DIVISION 2. - PRIVATE SERVICE LINES AND CONNECTIONS
DIVISION 3. - USE OF PUBLIC SEWERS
DIVISION 4. - ACCOUNTS AND BILLING
DIVISION 5. - PRIVATE SEWAGE DISPOSAL

DIVISION 1. GENERALLY

Sec. 29-1. Definitions.
Sec. 29-2. Abbreviations.
Sec. 29-3. General provisions.
Sec. 29-4. General sewer use requirements.
Sec. 29-5. Fat, oil, and grease control.
Sec. 29-6. Pretreatment of wastewater.
Sec. 29-7. Industrial pretreatment user permit eligibility.
Sec. 29-8. Industrial pretreatment user permit issuance process.
Sec. 29-9. Reporting requirements.
Sec. 29-10. Compliance monitoring.
Sec. 29-11. Confidential information.
Sec. 29-12. Publication of industrial users in significant noncompliance.
Sec. 29-13. Administrative enforcement remedies.
Sec. 29-14. Judicial enforcement; remedies.
Sec. 29-15. Supplemental enforcement action.
Sec. 29-16. Affirmative defenses to discharge violations.
Sec. 29-17. Miscellaneous provisions.

Sec. 29-1. Definitions.

Unless the context specifically indicates otherwise, the meaning of the terms used in this article shall be as follows:

Act or *the Act.* The Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 U.S.C. 1251 et seq.

Action level. The concentration based numeric value that the grease interceptor effluent, at the device's outlet tee and prior to mixing with any other waste water from the contributing establishment's property, are expected to achieve on a consistent or stipulated basis.

Approval authority. The State of Missouri Department of Natural Resources.

Approved. Approved by the city manager and "approval" shall mean the city manager's approval.

BOD (denoting biochemical oxygen demand). The quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure for five (5) days at twenty (20) degrees Celsius, expressed in milligrams per liter or parts per million by weight.

Building drain. That part of the lowest horizontal piping of a drainage system which receives the discharge from soil, waste, and other drainage pipes inside the walls of the building and conveys it to the building sewer, beginning five (5) feet outside the inner face of the building wall.

Building sewer. The extension from the building drain to the public sewer or other place of disposal.

Bypass. The intentional diversion of wastewaters from any portion of an industrial user's treatment facility.

COD (chemical oxygen demand). The quantity of oxygen equivalent of organic matter that is susceptible to oxidation by a strong chemical oxidant under standard laboratory conditions, expressed in milligrams per liter.

Capital charge. That portion of the total sewer service charge which is levied for local capital costs, local investment in plant facilities and other local costs excluding operation, maintenance and replacement costs.

Categorical user. Those industrial users subject to National Categorical Pretreatment Standards promulgated by the U.S. Environmental Protection agency under the Federal Water Pollution Control Act, P.L. 92-500, as amended. All such categorical users shall be considered significant industrial users under this chapter.

City. The City of Cape Girardeau or the city council of Cape Girardeau.

City Fee Schedule. The City Fee Schedule is established pursuant to the provisions of Section 25-114 of the City Code.

City manager. The city manager of the city, or his authorized deputy, agent or representative.

Color. The optical density at the visual wavelength of the maximum absorption, relative to distilled water. One hundred (100) percent transmittance is equivalent to zero (0.0) optical density.

Combined sewer. A sewer receiving both surface runoff and sewage.

Common interceptor. One (1) or more interceptors receiving FOG laden wastewater from more than one (1) establishment. Common interceptors may be located at shopping centers, malls, entertainment complexes, sporting arenas, hotels, multi-tenant "flex" spaces, mixed use spaces, and other sites where multiple establishments are connected to a single grease interceptor. The owner of the property on which the common grease interceptor is located shall be primarily responsible for the maintenance, upkeep, and repair of the common interceptor.

Composite sample. The sample resulting from combination of individual wastewater samples taken at selected intervals based on an increment of either flow or time.

Environmental Protection Agency or *EPA.* The U.S. Environmental Protection Agency or where appropriate, the term may also be used as a designation for the regional water management division director or other duly authorized official of said agency.

Existing source. Any source of discharge, the construction or operation of which commenced prior to the publication of proposed categorical pretreatment standards which will be applicable to such source if the standard is thereafter promulgated in accordance with Section 307 of the Act.

Fats, oils, and greases. Organic polar compounds derived from animal and/or plant sources that contain multiple carbon chain triglyceride molecules. These substances are detectable and measurable using analytical test procedures established in 40 CFR 136, as may be amended from time to time. All are sometimes referred to herein as "grease" or "greases" or "FOG".

Food service establishments or *"FSE".* Those establishments engaged in activities of preparing, serving, or otherwise making available for consumption foodstuffs and that use one (1) or more of the following preparation activities: Cooking by frying (all methods), baking (all methods), grilling, sauteing, rotisserie cooking, broiling (all methods), boiling, blanching, roasting, toasting, or poaching, and infrared heating, searing, barbecuing, and any other food preparation or serving activity that produces a consumable food product in or on a receptacle requiring washing to be reused.

Garbage. Solid wastes from domestic and commercial preparation, cooking and dispensing of food, and from the handling, storage and sale of produce.

Grab sample. A sample which is taken from a wastewater stream on a one-time basis without regard to the flow in the wastewater stream and without consideration of time.

Grease trap or interceptor. A device for separating waterborne greases and grease complexes from wastewater and retaining such greases and grease complexes prior to the wastewater existing the trap and entering the sanitary sewer collection and treatment system. Grease traps also serve to collect solids that settle, generated by and from activities that subject users to this section, prior to the water exiting the trap and entering the sanitary sewer collection and treatment system. Grease traps and interceptors are sometimes referred to herein as "grease interceptors".

Indirect discharge or *discharge.* The introduction of (nondomestic) pollutants into the POTW from any nondomestic source regulated under Section 307(b), (c) or (d) of the Act.

Industrial user. A source of discharge of pollutants into a POTW from any nondomestic source regulated under Section 307(b), (c), or (d) of the Clean Water Act.

Industrial wastes. Any wastes from industrial manufacturing processes, trade or business as distinct from sanitary sewage.

Instantaneous maximum allowable discharge limit. The maximum concentration (or loading) of a pollutant allowed to be discharged at any time, determined from the analysis of any discrete or composited sample collected, independent of the industrial flow rate and the duration of the sampling event.

Interference. A discharge which alone or in conjunction with a discharge from other sources: (1) inhibits or disrupts the POTW, its treatment processes or operations or its biomass processes, used or disposal; and (2) therefore is a cause of a violation of the city's NPDES permit or of the

prevention of biomass use or disposal in compliance with any of the following statutory/regulatory provisions or permits issued thereunder (or more stringent state or local regulations): Section 405 of Act; the Solid Waste Disposal Act (SWDA), including Title II commonly referred to as the Resource Conservation and Recovery Act (RCRA); any State regulations contained in any State Biomass Management Plan prepared pursuant to Subtitle D of the SWDA; the Clean Air Act; the Toxic Substances Control Act; and the Marine Protection, Research and Sanctuaries Act.

Medical waste. Isolation wastes, infectious agents, human blood and blood byproducts, pathological wastes, sharps, body parts, fomites, etiologic agents, contaminated bedding, surgical wastes, potentially contaminated laboratory wastes and dialysis wastes.

Minimum design capability. The design features of a grease interceptor and its ability or volume required to effectively intercept and retain greases and settled solids from grease-laden wastewaters discharged to the public sanitary sewer.

NPDES. National Pollutant Discharge Elimination System.

Natural outlet. Any outlet into a watercourse, pond, ditch, lake or other body of surface or groundwater.

New source.

(1) Any building, structure, facility or installation from which there is or may be a discharge of pollutants, the construction of which commenced after publication of proposed pretreatment standards under Section 307(c) of the Act which will be applicable to such source if such standards are thereafter promulgated in accordance with that section, provided that:

a. The building, structure, facility or installation is constructed at a site at which no other source is located; or

b. The building, structure, facility or installation totally replaces the process or production equipment that causes the discharge of pollutants at an existing source; or

c. The production or wastewater generating processes of the building, structure, facility or installation are substantially independent of an existing source at the same site. In determining whether these are substantially independent, factors such as the extent to which the new facility is integrated with the existing plant, and the extent to which the new facility is engaged in the same general type of activity as the existing source, should be considered.

(2) Construction on a site at which an existing source is located results in a modification rather than a new source if the construction does not create a new building, structure, facility or installation meeting the criteria of subsection (1)b. or c., above, but otherwise alters, replaces, or adds to existing process or production equipment.

(3) Construction of new source as defined under this paragraph has commenced if the owner or operator has:

a. Begun, or caused to begin as part of a continuous onsite construction program:

1. Any placement, assembly, or installation of facilities or equipment; or

2. Significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or

b. Entered into a binding contractual obligation for the purchase of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under this paragraph.

Noncontact cooling water. Water used for cooling which does not come into direct contact with any raw material intermediate product, waste product, or finished product.

Noncooking establishments. Establishments primarily engaged in the preparation of precooked foodstuffs that do not include any form of cooking, but that may produce a consumable food product in or on a receptacle requiring washing to be reused.

On-site grease interceptor treatment (sometimes "onsite treatment"). Mechanisms or procedures utilized by a user to treat grease interceptor contents on the user's site, followed by the reintroduction of such treated wastewater back into the interceptor. On-site grease interceptor treatment may only be accomplished by a user if the user or the user's contract service provider is permitted by the City of Cape Girardeau.

Pass through. A discharge which exits the POTW into waters of the U.S. in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the city's NPDES permit (including an increase in the magnitude or duration of a violation).

pH. The intensity of the acid or base condition of a solution, calculated by taking the logarithm of the reciprocal of the hydrogen ion concentration expressed in moles per liter of solutions.

Person. Any individual, partnership, copartnership, firm, company, corporation, association, joint stock company, trust, estate, governmental entity or any other legal entity, or their legal representatives, agents or assigns. This definition includes all federal, state or local governmental entities.

Pollutant. Any dredged spoil, solid waste, incinerator residue, sewage, garbage, biomass, munitions, medical wastes, chemical wastes, industrial wastes, biological materials, radioactive materials, heat, wrecked or discharged equipment, rock, sand, cellar dirt, agricultural wastes, and the characteristics of the wastewater (i.e., pH, temperature, TSS, turbidity, color, BOD, chemical oxygen demand (COD), toxicity, odor).

Pretreatment. The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of introducing such pollutants into the POTW. This reduction or alteration can be obtained by physical, chemical or biological processes, by process changes, or by other means, except by diluting the concentration of the pollutants unless allowed by an applicable pretreatment standard.

Pretreatment requirements. Any substantive or procedural requirement related to pretreatment imposed on an industrial user, other than a pretreatment standard.

Pretreatment standards or *standards.* Prohibitive discharge standards, categorical pretreatment standards, and local limits.

Program acknowledgement certificate. Program confirmation documentation issued by the Public Works Director or his designee. The user is required to keep program acknowledgement certificate on premises and produce it upon request.

Prohibited discharge standards or *prohibited discharges.* Absolute prohibitions against the discharge of certain substances; these prohibitions appear in section 29-4 of this article.

Properly shredded garbage. The wastes from the preparation, cooking and dispensing of food that have been shredded to such a degree that all particles will be carried freely under the flow conditions normally prevailing in public sewers, with no particle greater than one-half (½) inch in any dimension.

Publicly owned treatment works (POTW). The wastewater system, or sewage works, owned by the city. This definition includes any sewer that conveys wastewater to the POTW treatment plant except private sewers. The term also means the city having jurisdiction over the industrial users and responsibility for the operation and maintenance of the treatment works.

Public sewer. A sewer which all owners of abutting properties have equal rights, and is controlled by public authority.

Sanitary sewer. A sewer which carries sewage and to which storm, surface, and groundwaters are not intentionally admitted.

Septic tank waste. Any sewage from holding tanks such as vessels, chemical toilets, campers, trailers, and septic tanks.

Service provider. Any third party not in the employment of the user that performs maintenance, repair, and other services on a user's grease interceptor at the user's directive.

Severe property damage. Substantial physical damage to property, damage to the treatment facilities which cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

Sewage or *wastewater.* The liquid and water-carried wastes from residences, business buildings, institutions and industrial establishments, together with such ground, surface and stormwater as may be present, with no particle greater than one-half (½) inch in any dimension.

Sewage system. All facilities for collecting, pumping, treating, and disposing of sewage.

Sewer service charge. The total monthly charge for sewage service.

Sewage treatment plant. Any arrangement of devices and structures used for treating sewage.

Sewage works. All facilities for collecting, pumping, treating and disposing of sewage.

Sewer. A pipe or conduit for carrying sewage.

Shall. Mandatory; as opposed to "may" which is permissive.

Significant industrial user. Any categorical user, or industrial user of the city's sewage works whose flow:

(1) Exceeds twenty-five thousand (25,000) gallons per day;

(2) Exceeds five (5) percent of the daily hydraulic or organic capacity of the sewage treatment plant;

(3) Is subject to a surcharge for excessive BOD and/or SS as provided for in this chapter;

(4) Has toxic material in its waste stream in toxic amounts as defined in standards issued under Section 307(a) of the Federal Water Pollution Control Act, P.L. 92-500, as amended;

(5) Is determined to have significant impact, either singly or in combination with other contributing industries, on the treatment works such that the quality of the effluent, or sludges, from the treatment works deviates from the requirements set forth in the NPDES permit issued to the city, or such that interference with the treatment process or facilities would result.

Significant noncompliance.

(1) Chronic violations of wastewater discharge limits, defined here as those in which sixty -six (66) percent or more of wastewater measurements taken during a six-month period exceed the daily maximum limit or average limit for the same pollutant parameter by any amount;

(2) Technical review criteria (TRC) violations, are defined here as those in which thirty-three (33) percent or more of wastewater measurements taken for each pollutant parameter during a six-month period equals or exceeds the product of the daily maximum limit or the average limit multiplied by the applicable criteria (1.4 for BOD, TSS, fats, oils and grease, and 1.2 for all other pollutants except pH);

(3) Any other discharge violation that the city believes has caused, alone or in combination with other discharges, interference or pass through (including endangering the health of city personnel or the general public);

(4) Any discharge violation that the city believes has caused imminent endangerment to the public or to the environment, or has resulted in the city's exercise of its emergency authority to halt or prevent such a discharge;

(5) Failure to meet, within ninety (90) days of the scheduled date, a compliance schedule milestone contained in an industrial pretreatment user permit or enforcement order for starting construction, completing construction, or attaining final compliance;

(6) Failure to provide within thirty (30) days after the due date, any required reports, including baseline monitoring reports, ninety-day compliance reports, periodic self-monitoring reports, and reports on compliance with compliance schedules;

(7) Failure to accurately report noncompliance;

(8) Any other violation(s) which the city determines will adversely affect the operation or implementation of the local pretreatment program.

Slug. Any discharge of water, sewage or industrial waste which in concentration of any given constituent or in quantity of flow exceeds for any period of duration longer than fifteen (15) minutes more than five (5) times the average twenty-four-hour concentration or flows during normal operation.

Slug load. Any discharge at a flow rate or concentrations which could cause a violation of the prohibited discharge standards in section 29-4 of this article or any other discharge of a nonroutine, episodic nature, including, but not limited to, an accidental spill or noncustomary batch discharge.

Standard Industrial Classification (SIC) Code. A classification pursuant to the Standard Industrial Classification Manual issued by the U.S. Office of Management and Budget.

Standard specifications. The City of Cape Girardeau standard specifications and drawings, as may be amended, on file with the city clerk.

Storm drain (sometimes termed "storm sewer"). A sewer which carries storm and surface waters and drainage, but excludes sewage and industrial wastes, other than unpolluted cooling water.

Stormwater. Any flow occurring during or following any form of natural precipitation, resulting therefrom, including snowmelt.

Suspended solids (SS). Solids that either float on the surface of, or are in suspension in water, sewage, or other liquids, and which are removable by laboratory filtering, expressed in milligrams per liter.

Technical review criteria (TRC). Violations in which thirty-three (33) percent or more of wastewater measurements taken for each pollutant parameter during a six-month period equals or exceeds the product of the daily maximum limit or the average limit multiplied by the applicable criteria, 1.4 for BOD, TSS, fats, oils and grease, and 1.2 for all other pollutants except pH.

Toxic pollutant(s). Any pollutants, gaseous, liquid or solid, which when discharged into the sewage system may tend to interfere with any waste treatment process, or to constitute a hazard to human beings or animals, or to inhibit aquatic life or to create a hazard to recreation in the receiving water of the effluent from the sewage treatment plant. Such pollutant, or combination of pollutants, are listed as toxic in regulations promulgated by EPA under the provisions of Section 307 (33 U.S.C. 1317) of the Act.

Treatment plant effluent. Any discharge of pollutants from the POTW into waters of the state.

User. Any person, including those located outside the jurisdictional limits of the city, who contributes, causes or permits the contribution or discharge of wastewater into the POTW, including persons who contribute such wastewater from mobile sources, such as those who discharge hauled wastewater. Users include property owners who provide common interceptors for one (1) or more independent establishments, including tenants.

User charge. That portion of the total sewer service charge which is levied for the cost of operation, maintenance and replacement of the sewage system.

Watercourse. A channel in which a flow of water occurs, either continuously or intermittently.

Wastewater. Any liquid and water-carried industrial wastes, and sewage from residential dwellings, commercial buildings, industrial and manufacturing facilities, and institutions, whether treated or untreated, which are contributed to the POTW.

Wastewater coordinator. The person designated by the city to supervise the operation of the POTW, and who is charged with certain duties and responsibilities by this article or his duly authorized representative.

Wastewater treatment plant. That portion of the POTW designed to provide treatment of sewage and industrial wastes.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-2. Abbreviations.

The following abbreviations shall have the designated meanings:

BOD—Biochemcial oxygen demand
CFR—Code of Federal Regulations
COD—Chemical oxygen demand
CSR—Code of State Regulations
EPA—U.S. Environmental Protection Agency
FOG—Fats, oils, and greases
FSE—Food service establishments
gpd—Gallons per day
l—Liter
mg—Milligrams
mg/l—Milligrams/liter
NPDES—National Pollutant Discharge Elimination System
O&M—Operation and maintenance
POTW—Publicly owned treatment works
RCRA—Resource Conservation and Recovery Act
SIC—Standard Industrial Classifications
SWDA—Solid Waste Disposal Act (42 U.S.C. 6901 et seq.)
TRC—Technical review criteria
TSS—Total suspended solids
USC—United States Code

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-3. General provisions.

(a) *Purpose and policy.* This article sets forth uniform requirements for users of the wastewater collection and publicly owned treatment works (POTW) for the City of Cape Girardeau and enables the city to comply with all applicable state and federal laws including the Clean Water Act (33 U.S.C. 1251 et seq.), and the General Pretreatment Regulations (40 CFR Part 403). The objectives of this article are:

(1) To prevent the introduction of pollutants into the POTW that will interfere with the operation of the POTW;

(2) To prevent the introduction of pollutants into the POTW which will pass through the POTW, inadequately treated, into the receiving waters or otherwise be incompatible with the POTW;

(3) To ensure that the quality of the wastewater treatment plant sludge is maintained at a level which allows its use and disposal in compliance with applicable statutes and regulations;

(4) To protect POTW personnel who may be affected by wastewater and sludge in the course of their employment and to protect the general public;

(5) To improve the opportunity to recycle and reclaim wastewater and sludge from the POTW;

(6) To provide for fees for the equitable distribution of the cost of operation, maintenance and improvement of the POTW; and

(7) To enable the city to comply with its NPDES permit conditions, sludge use and disposal requirements and any other federal or state laws to which the POTW is subject.

(b) *Administration.* Except as otherwise provided herein, the city manager shall administer, implement and enforce the provisions of this article. Any powers granted to or duties imposed upon the city manager may be delegated by the city manager to other city personnel.

(Ord. No. 4255, art. 1. 8-15-11)

Sec. 29-4. General sewer use requirements.

(a) *Prohibited discharge standards.* No industrial user shall introduce or cause to be introduced into the POTW any pollutant or wastewater which causes pass through or interference. These general prohibitions apply to all industrial users of the POTW whether or not they are subject to categorical pretreatment standards or any other national, state or local pretreatment standards or requirements. Furthermore, no industrial user may contribute the following substances to the POTW:

(1) Pollutants which create a fire or explosive hazard in the municipal wastewater collection system and POTW, including, but not limited to, wastewater streams with closed-cup flashpoint of less than one hundred forty (140) degrees F (sixty (60) degrees C) using the test method specified in 40 CFR 261.21.

(2) Any wastewater having a pH less than 5.5 or more than 9.5, or otherwise causing corrosive structural damage to the POTW or equipment, or endangering city personnel.

(3) Solid or viscous substances in amounts which will cause obstruction of the flow in the POTW resulting in interference, but in no case solids greater than one (1) inch or two and one-half (2.5) centimeters in any dimension.

(4) Any wastewater containing pollutants, including oxygen demanding pollutants (BOD, COD, etc.), released in a discharge at a flow rate and/or pollutant concentration which, either singly or by interaction with other pollutants, will cause interference with either the POTW; or any wastewater treatment or sludge process, or which will constitute a hazard to human or animals.

(5) Any wastewater having a temperature greater than one hundred fifty (150) degrees F or sixty-five (65) degrees C, or which will inhibit biological activity in the treatment plant, but in no case wastewater which causes the temperature at the introduction into the treatment plant to exceed one hundred four (104) degrees F (forty (40) degrees C).

(6) Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin, in amounts that will cause interference or pass through.

(7) Any pollutants which result in the presence of toxic gases, vapors or fumes within the POTW in a quantity that may cause acute worker health and safety problems.

(8) Any trucked or hauled pollutants, except at discharge points designated by the city in accordance with section 29-6(e).

(9) Any noxious or malodorous liquids, gases, solids, or other wastewater which, either singly or by interaction with other wastes, are sufficient to create a public nuisance, a hazard to life, or to prevent entry into sewers for maintenance and repair.

(10) Any wastewater which imparts color which cannot be removed by the treatment process, such as, but not limited to, dye wastes and vegetable tanning solutions, which consequently imparts color to the treatment plant's effluent thereby violating the city's NPDES permit. Color (in combination with turbidity) shall not cause the treatment plant effluent to reduce the depth of the compensation point for photosynthetic activity by more than ten (10) percent from the seasonably established norm for aquatic life.

(11) Any wastewater containing any radioactive wastes or isotopes except as specifically approved by the city manager in compliance with applicable state or federal regulations.

(12) Stormwater, surface water, groundwater, artesian well water, roof runoff, subsurface drainage, swimming pool drainage, condensate, deionized water, noncontact cooling water, and unpolluted industrial wastewater, unless specifically authorized by the city manager.

(13) Any sludges, screenings, or other residues from the pretreatment of industrial wastes.

(14) Any medical wastes, except as specifically authorized by the city manager in an industrial pretreatment user permit.

(15) Any wastewater causing the treatment plant's effluent to fail a toxicity test.

(16) Any wastes containing detergents, surface active agents, or other substances which may cause excessive foaming in the POTW.

(17) Any discharge of fats, oils, or grease in violation of section 29-5

Wastes prohibited by this section shall not be processed or stored in such a manner that they could be discharged to the POTW. All floor drains located in process or materials storage areas must discharge to the industrial user's pretreatment facility before connecting with the POTW.

(b) *Federal categorical pretreatment standards.* The National Categorical Pretreatment Standards found at 40 CFR Chapter I, Subchapter N, Parts 405—471 and hereafter amended are hereby incorporated.

(c) *State pretreatment requirements.* The State of Missouri Pretreatment Standards found at 10 CSR Division 20-6.100 and hereafter amended are hereby incorporated.

(d) *Specific pollutant limitations.* The city will evaluate annually the need for local limits as determined by MoDNR.

(e) *City's right of revision.* The city reserves the right to establish, by ordinance or in industrial pretreatment user permits, more stringent standards or requirements on discharges to the POTW if deemed necessary to comply with the objectives in section 29-3 of this article or the general and specific prohibitions in section 29-4(a) of this article.

(f) *Special agreements.* The city reserves the right to enter into special agreements with industrial users setting out special terms under which they may discharge to the POTW. In no case will a special agreement waive compliance with a pretreatment standard or requirement. However, the industrial user may request a net gross adjustment to a categorical standard in accordance with 40 CFR 403.15. They may also request a variance from categorical pretreatment standard from EPA. Such a request will be approved only if the industrial user can prove that factors relating to its discharge are fundamentally different from the factors considered by EPA when establishing that pretreatment standard. An industrial user requesting a fundamentally different factor variance must comply with the procedural and substantive provisions in 40 CFR 403.13.

(g) *Dilution.* No industrial user shall ever increase the use of process water, or in any way attempt to dilute a discharge, as a partial or complete substitute for adequate treatment to

achieve compliance with a discharge limitation unless expressly authorized by an applicable pretreatment standard or requirement. The city manager may impose mass limitations on industrial users which are using dilution to meet applicable pretreatment standards or requirements, or in other cases when the imposition of mass limitations is appropriate.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-5. Fat, oil, and grease control.

(a) *Scope and purposes.* The objective of this section is to aid in preventing the introduction and accumulation of fats, oils, and greases into the municipal wastewater system which will or tend to cause or contribute to sanitary sewer blockages and obstructions. Food service establishments and other industrial, institutional or commercial establishments generating wastewater containing fats, oils or greases are subject to this section. This section regulates such users by requiring that grease interceptors and other approved strategies be installed, implemented, and maintained in accordance with the provisions hereof. Existing grease traps or interceptors that are in good repair and functioning properly may be exempt from grease trap location requirements until such time that the establishment changes ownership, undergoes a major remodel, change of purpose, or fails to meet discharge action levels.

(b) *Grease interceptor installation, inspection, maintenance, record-keeping, and grease removal.*

(1) Grease interceptors shall be installed and maintained at the user's expense, when a user operates a food service establishment. Grease interceptors may be required in noncooking or cold dairy and frozen foodstuffs establishments and other industrial or commercial establishments when the establishment generates wastewater containing fat or grease and the public works director or his designee determines an interceptor is necessary to prevent contribution or accumulation of grease to the sanitary sewer collection and treatment system. No user shall allow wastewater discharge concentration from subject grease interceptor to exceed an established action level of one hundred (100) milligrams per liter, expressed as hexane extractable material. Any user in violation of these limits shall be subject to penalties as set out in this article. All grease interceptors shall be of a type, design, and capacity approved by the public works director or his designee and shall be readily and easily accessible for maintenance and repair, including cleaning and for inspection. All grease interceptors shall be serviced and emptied of accumulated waste content as required in order to maintain minimum design capability or effective volume of the grease interceptor, but not less often than every sixty (60) days or as permitted in a valid program modification. Users who are required to pass wastewater through a grease interceptor shall:

a. Provide for a minimum hydraulic retention time of twenty-four (24) minutes at actual peak flow between the influent and effluent baffles, with twenty-five (25) percent of the total volume of the grease interceptor being allowed for any food -derived solids to settle or accumulate and floatable grease-derived materials to rise and accumulate, identified hereafter as a solids blanket and grease cap respectively.

b. Remove any accumulated grease cap and solids blanket as required, but at intervals of not longer than sixty (60) days at the user's expense, or in accordance with a valid program modification or other public works director or his designee's requirements. Grease interceptors shall be kept free of inorganic solid materials, such as grit, rocks, gravel, sand, eating utensils, styrofoam,

cigarettes, shells, towels, rags, etc., which could settle into this solids blanket and thereby reduce the effective volume of the grease interceptor.

c. Operate and maintain the grease interceptor to achieve and maintain any applicable grease action level. This shall mean any wastewater sample taken from such grease interceptor must meet the terms of numerical limit attainment described in section 29-5(b)(1).

d. If a user documents that conditions exist ("space constraints") on their establishment site that limit the ability to locate a grease interceptor on the exterior of the establishment, the user may request an interior location for the interceptor. Such request shall contain the following information:

1. Location of city sewer main and easement in relation to available exterior space outside building.
2. Existing plumbing layout at or in a site.
3. A statement of understanding, signed by the user or authorized agent, acknowledging and accepting conditions the public works director or his designee may place on permitting an identified interior location. Conditions may include requirements to use alternative mechanisms, devices, procedures, or operations relative to an interior location.
4. Grant of access to interceptor for city inspection.
5. Such other information as may be required by the public works director or his designee.

e. The use of biological or other additives as a grease degradation or conditioning agent is not permissible.

f. The use of automatic grease removal systems is permissible only upon prior written approval of the public works director or his designee and the Cape Girardeau County Public Health Center Director or designee. Any user using a grease interceptor located on the interior of the site shall be subject to any operational requirements set forth by the City of Cape Girardeau. Any user using this equipment shall operate the system in such a manner that attainment of the grease wastewater discharge limit, as measured from the unit's outlet, is achieved as required by the public works director or his designee.

g. The public works director or his designee may make determinations of grease interceptor adequacy need, design, appropriateness, application, location, modification(s), and conditional usage based on review of all relevant information regarding grease interceptor performance, facility site and building plan review by all regulatory reviewing agencies and may require repairs to, or modification or replacement of grease interceptors.

h. The user shall allow access to the public works director or his designee for the purpose of determining compliance with this article.

(2) The user shall maintain a written record of grease interceptor maintenance for three (3) years. All such records will be available for inspection at all times. These records shall include:

a. FSE name and physical location;

b. Date of grease interceptor service;

c. Time of grease interceptor service;

d. Name of grease interceptor service company;

e.

Name and signature of grease interceptor service company agent performing said service;

f. Established service frequency and type of service;

g. Number and size of each grease interceptor serviced at FSE location;

h. Approximated amount, per best professional judgment of contract service provider, of grease and solids removed from each grease interceptor;

i. Total volume of waste removed from each grease interceptor;

j. Destination of removed wastes, food solids, and wastewater disposal;

k. Signature and date of FSE personnel confirming service completion;

l. Such other information as required by public works director or his designee.

(3) No nongrease-laden sources are allowed to be connected to sewer lines intended for grease interceptor service.

(4) Access manholes shall have an installed diameter of twenty-four (24) inches, and shall be provided over each chamber, interior baffle wall, and each sanitary tee. The access penetrations, commonly referred to as "risers" into the grease interceptor shall also be, at a minimum, twenty-four (24) inches in diameter. The access manholes shall extend at least to finished grade and be designed and maintained to prevent water inflow or infiltration. The manholes shall also have readily removable covers to facilitate inspection, grease removal, and wastewater sampling activities.

(5) A user may request a modification to the following requirements of this section. Such request for a modification shall be in writing and shall provide the information set forth below:

a. The user's grease interceptor pumping frequency. The public works director or his designee may modify the sixty-day grease interceptor pump out frequency when the user provides data, and performance criteria relative to the overall effectiveness of a proposed alternate and such can be substantiated by the public works director or his designee.

b. Grease interceptor maintenance and service procedures. The public works director or his designee may modify the method(s) or procedure(s) utilized to service a grease interceptor when the user provides data, and performance criteria relative to the overall effectiveness of a proposed alternate method or procedure and such can be substantiated by the public works director or his designee. If a modification to maintenance and service procedures is permitted it shall be a conditional discharged permit approval.

c. Any modification must be approved by the public works director or his designee in written form before implementation by the user or the user's designated service provider. The user shall pay modification fees as set forth in the city fee schedule.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-6. Pretreatment of wastewater.

(a) *Pretreatment facilities.* Industrial users shall provide necessary wastewater treatment as required to comply with this article and shall achieve compliance with all categorical pretreatment standards, local limits and the prohibitions set out in section 29-4(a) above within the time limitations specified by the EPA, the state or the city manager whichever is more stringent. Any facilities required to pretreat wastewater to a level acceptable to the city shall be provided, operated, and maintained at the industrial user's expense. Detail plans

showing the pretreatment facilities and operating procedures shall be submitted to the city for review, and shall be acceptable to the city before construction of the facility. The review of such plans and operating procedures will in no way relieve the industrial user from the responsibility of modifying the facility as necessary to produce an acceptable discharge to the city under the provisions of this article.

(b) *Additional pretreatment measures.*

(1) Whenever deemed necessary, the city manager may require industrial users to restrict their discharge during peak flow periods, designate that certain wastewater be discharged only into specific sewers, relocate and/or consolidate points of discharge, separate sewage wastestreams from industrial wastewaters, and such other conditions as may be necessary to protect the POTW and determine the industrial user's compliance with the requirements of this article.

(2) Fats, oil, and grease interceptors shall be subject to fats, oil, and grease control regulations contained in section 29-5. Sand interceptors shall be provided when, in the opinion of the city manager, they are necessary for the proper handling of wastewater containing excessive amounts of sand; except that such interceptors shall not be required for residential users. All interceptors units shall be so located to be easily accessible for cleaning and inspection. Such interceptors shall be inspected, cleaned, and repaired regularly, as needed, by the owner at his expense.

(3) Industrial users with the potential to discharge flammable substances may be required to install and maintain an approved combustible gas detection meter.

(c) *Accidental discharge/slug control plans.* The city manager may require any industrial user to develop and implement an accidental discharge/slug control plan. At least once every two (2) years the city manager shall evaluate whether each significant industrial user needs such a plan. Any industrial user required to develop and implement an accidental discharge/control slug plan shall submit a plan which addresses, at a minimum, the following:

(1) Description of discharge practices, including non-routine batch discharges.

(2) Description of stored chemicals.

(3) Procedures for immediately notifying the POTW of any accidental or slug discharge. Such notification must also be given for any discharge which could violate any of the prohibited discharges in section 29-4(a) of this article.

(4) Procedures to prevent adverse impact from any accidental or slug discharge. Such procedures include, but are not limited to, inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site run-off, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants (including solvents), and/or measures and equipment for emergency response.

(d) *Tenant responsibility.* Where an owner of property leases premises to any other person as a tenant under any rental or lease agreement, if either the owner or the tenant is an industrial user, either or both may be held responsible for compliance with this article.

(e) *Hauled wastewater.*

(1) Septic tank waste may be accepted into the POTW at a designated receiving structure within the treatment plant area, and at such times as are established by the city manager, provided such wastes do not violate section 29-4(a) of this article or any other requirements established or adopted by the city. A waste hauler permit for individual vehicles to use such facilities shall be issued by the city manager pursuant to the requirements of this section.

(2)

The discharge of hauled industrial wastes as "industrial septage" requires prior approval and a waste hauler permit from the city. The city manager shall have authority to prohibit the disposal of such wastes, if such disposal would interfere with the treatment plant operation. Waste haulers are subject to all other sections of this article.

(3) Fees for dumping domestic and industrial septage will be established as part of the industrial user fee system as authorized in section 29-17(a).

(f) *Damage to sewage equipment or appurtenances.* It shall be unlawful for any person to break, damage, destroy, cover, uncover, fill over, deface or tamper with any structure, appurtenance or equipment which is a part of the sewage works. Any person convicted of violating this section shall be punished in accordance with section 1-8 of the Code of Ordinances.

(Ord. No. 4255, art. 1. 8-15-11)

Sec. 29-7. Industrial pretreatment user permit eligibility.

(a) *Wastewater survey.* When requested by the city manager, all industrial users must submit information on the nature and characteristics of their wastewater by completing a wastewater survey prior to commencing their discharge. The city manager is authorized to prepare a form for this purpose and may periodically require industrial users to update the survey. Failure to complete this survey shall be reasonable grounds for terminating service to the industrial user and shall be considered a violation of this article.

(b) *Industrial pretreatment user permit requirement.*

(1) It shall be unlawful for any significant user to discharge wastewater into the city's POTW without obtaining an industrial pretreatment user permit from the city manager. Any violation of the terms and conditions of an industrial pretreatment user permit shall be deemed a violation of this article and subjects the industrial pretreatment user permittee to the sanctions set out in sections 29-13 through 29-15. Obtaining an industrial pretreatment user permit does not relieve a permittee of its obligation to comply with all federal and state pretreatment standards or requirements or with any other requirements of federal, state and local law.

(2) The city manager may require other industrial users, including liquid waste haulers, to obtain an industrial pretreatment user permits as necessary to carry out the purpose of this article.

(c) *Industrial pretreatment user permitting existing connections.* Any significant industrial user which discharges industrial waste into the POTW prior to the effective date of this article and who wishes to continue such discharges in the future, shall, within ninety (90) days after said date, apply to the city for an industrial pretreatment user permit, and shall not cause or allow discharges to the POTW to continue after ninety (90) days of the effective date of this article except in accordance with an industrial pretreatment user permit issued by the city manager.

(d) *Industrial pretreatment user permitting new connections.* Any significant industrial user proposing to begin or recommence discharging industrial wastes into the POTW must obtain an industrial pretreatment user permit prior to beginning or recommencing of such discharge. An application for this wastewater permit must be filed at least ninety (90) days prior to the date upon which discharge will begin.

(e) *Industrial pretreatment user permitting extra jurisdictional industrial users.* Any existing significant industrial user located beyond the city limits shall submit an industrial pretreatment user permit application, in accordance with section 29-7(f) below, within ninety (90) days of the effective date of this article. New significant industrial users located beyond

the city limits shall submit such application to the city manager ninety (90) days prior to any proposed discharge into the POTW.

(f) *Industrial pretreatment user permit application contents.* In order to be considered for an industrial pretreatment user permit, all industrial users required to have an industrial pretreatment user permit must submit the information required by section 29-9(a)(2) of this article. The city manager shall approve a form to be used as a permit application. In addition, the following information may be requested:

(1) Description of activities, facilities, and plant processes on the premises, including a list of all raw materials and chemicals used or stored at the facility which are, or could accidentally or intentionally be, discharged to the POTW.

(2) Number of employees, hours of operation, and proposed or actual hours of operation of the plant.

(3) Each product produced by type, amount, process or processes, and rate of production.

(4) Type and amount of raw materials processed (average and maximum per day).

(5) The site plans, floor plans, mechanical and plumbing plans, and details to show all sewers, floor drains, and appurtenances by size, location, and elevation, and all points of discharge.

(6) Time and duration of the discharge.

(7) Any other information as may be deemed necessary by the city manager to evaluate the industrial pretreatment user permit application.

Incomplete or inaccurate applications will not be processed and will be returned to the industrial user for revision.

(g) *Application signatories and certification.* All industrial pretreatment user permit applications and industrial user reports must contain the following certification statement and be signed by an authorized representative of the industrial user.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

(h) *Industrial pretreatment user permit decisions.* The city manager will evaluate the data furnished by the industrial user and may require additional information. Within thirty (30) days of receipt of a complete industrial pretreatment user permit application, the city manager will determine whether or not to issue an industrial pretreatment user permit. If no determination is made within this time period, the application will be deemed denied. The city manager may deny any application for an industrial pretreatment user permit.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-8. Industrial pretreatment user permit issuance process.

(a) *Industrial pretreatment user permit duration.* Industrial pretreatment user permits shall be issued for a specified time period, not to exceed five (5) years. An industrial pretreatment user permit may be issued for a period less than five (5) years, at the discretion of the city

manager. Each industrial pretreatment user permit will indicate a specific date upon which it will expire.

(b) *Industrial pretreatment user permit contents.* Industrial pretreatment user permits shall include such conditions as are reasonably deemed necessary by the city manager to prevent pass through or interference, protect the quality of the water body receiving the treatment plant's effluent, protect worker health and safety, facilitate sludge management and disposal, protect against damage to the POTW.

(1) Industrial pretreatment user permits must contain the following conditions:

a. A statement that indicates industrial pretreatment user permit duration, which in no event shall exceed five (5) years.

b. A statement that the industrial pretreatment user permit is nontransferable without prior notification to and approval from the city, and provisions for furnishing the new owner or operator with a copy of the existing industrial pretreatment user permit.

c. Effluent limits applicable to the user based on applicable standards in federal, state, or local law.

d. Self monitoring, sampling, reporting, notification, and recordkeeping requirements. These requirements shall include an identification of pollutants to be monitored, sampling location, sampling frequency, and sample type based on federal, state, and local law.

e. Statement of applicable civil, criminal, and administrative penalties for violation of pretreatment standards and requirements, and any applicable compliance schedule. Such schedule may not extend the time for compliance beyond that required by applicable federal, state, or local law.

(2) Industrial pretreatment user permits may contain, but need not be limited to, the following:

a. Limits on the average and/or maximum rate of discharge, time of discharge, and/or requirements for the flow regulation and equalization.

b. Limit on the instantaneous, daily and monthly average and/or maximum concentration, mass, or other measure of identified wastewater pollutants or properties.

c. Requirements for the installation of pretreatment technology, pollution control, or construction of appropriate containment devices, designed to reduce, eliminate, or prevent the introduction of pollutants into the treatment works.

d. Development and implementation of spill control plans or other special conditions including management practices necessary to adequately prevent accidental, unanticipated, or routine discharges.

e. Development and implementation of waste minimization plans to reduce the amount of pollutants discharged into the POTW.

f. The unit charge or schedule of industrial user charges and fees for the management of the wastewater discharges to the POTW.

g. Requirements for installation and maintenance of inspection and sampling facilities and equipment.

h. A statement that compliance with the industrial pretreatment user permit does not relieve the permittee of responsibility for compliance with all applicable federal and state pretreatment standards, including those which become effective during the term of the industrial pretreatment user permit.

i. Other conditions as deemed appropriate by the city manager to ensure compliance with this article, state and federal laws, rules, and regulations.

(c) *Industrial pretreatment user permit appeals.* Any person, including the industrial user may petition the city to reconsider the terms of an industrial pretreatment user permit within sixty (60) days of its issuance.

(1) Failure to submit a timely petition for review shall be deemed to be a waiver of the administrative appeal.

(2) In its petition, the appealing party must indicate the industrial pretreatment user permit provisions objected to, the reasons for the objection, and the alternative condition, if any, it seeks to place in the industrial pretreatment user permit.

(3) The effectiveness of the industrial pretreatment user permit shall not be stayed pending appeal.

(4) If the city manager fails to act within sixty (60) days, a request for reconsideration shall be denied. Decisions not to reconsider an industrial pretreatment user permit, not to issue an industrial pretreatment user permit, or not to modify an industrial pretreatment user permit, shall be considered final administrative action.

(5) Any permit applicant may file with the city council a written request for reconsideration of the decision within ten (10) days. The city council may hear the appeal and shall make a final ruling within thirty-five (35) days of receipt of the user's written appeal. The decision of the city council shall be considered final administrative action for the purposes of judicial review.

(d) *Industrial pretreatment user permit modification.* The city manager may modify the industrial pretreatment user permit for good cause including, but not limited to, the following:

(1) To incorporate any new or revised federal, state, or local pretreatment standards or requirements.

(2) To address significant alterations or additions to the industrial user's operation, processes, or wastewater volume or character since the time of industrial pretreatment user permit issuance.

(3) A change in the POTW that requires either a temporary or permanent reduction or elimination of the authorized discharge.

(4) Information indicating that the permitted discharge poses a threat to the city's POTW, city personnel, or the receiving waters.

(5) Violation of any terms or conditions of the industrial pretreatment user permit.

(6) Misrepresentation or failure to fully disclose all relevant facts in the industrial pretreatment user permit application or in any required reporting.

(7) Revisions of or a grant of variance from categorical pretreatment standards pursuant to 40 CFR 403.13.

(8) To correct typographical or other errors in the industrial pretreatment user permit.

(9) To reflect a transfer of the facility ownership and/or operation to a new owner/operator.

The filing of a request by the permittee for an industrial pretreatment user permit modification does not stay any industrial pretreatment user permit conditions.

(e) *Industrial pretreatment user permit transfer.* Industrial pretreatment user permits may be reassigned or transferred to a new owner and/or operator only if the permittee gives at least ninety (90) days advance notice to the city manager and the city manager approves the

industrial pretreatment user permit transfer. The notice to the city manager must include a written certification by the new owner and/or operator which:

(1) States that the new owner and/or operator has no immediate intent to change the facility's operations and processes.

(2) Identifies the specific date on which the transfer is to occur.

(3) Acknowledges full responsibility for complying with the existing industrial pretreatment user permit.

Failure to provide advance notice of a transfer renders the industrial pretreatment user permit voidable on the date of a facility transfer.

(f) *Industrial pretreatment user permit revocation.* Industrial pretreatment user permits may be revoked for the following reasons:

(1) Failure to notify the city of significant changes to the wastewater prior to the changed discharge.

(2) Failure to provide prior notification to the city of changed condition pursuant to section 29-9(e).

(3) Misrepresentation or failure to fully disclose all relevant facts in the industrial pretreatment user permit application.

(4) Falsifying self-monitoring reports.

(5) Tampering with monitoring equipment.

(6) Refusing to allow the city timely access to the facility premises and records.

(7) Failure to meet effluent limitations.

(8) Failure to pay fines and penalties.

(9) Failure to pay sewer charges.

(10) Failure to meet compliance schedules.

(11) Failure to complete a wastewater survey or the industrial pretreatment user permit application.

(12) Failure to provide advance notice of the transfer of a permitted facility.

(13) Violation of any pretreatment standard or requirement, or any terms of the industrial pretreatment user permit or this article.

Industrial pretreatment user permits shall be voidable upon nonuse, cessation of operations, or transfer of business ownership. All industrial pretreatment user permits are void upon the issuances of a new wastewater discharge permit.

(g) *Industrial pretreatment user permit reissuance.* A significant industrial user shall apply for industrial pretreatment user permit reissuance by submitting a complete industrial pretreatment user permit application in accordance with section 29-8(f) a minimum of ninety (90) days prior to the expiration of the industrial user's existing industrial pretreatment user permit.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-9. Reporting requirements.

(a) *Baseline monitoring reports.*

(1) Within either one hundred eighty (180) days after the effective date of a categorical pretreatment standard, or the final administrative decision on a category determination under 40 CFR 403.6(a)(4), whichever is later, existing significant industrial users

subject to such categorical pretreatment standards, and currently discharging to or scheduled to discharge to the POTW, shall be required to submit to the city a report which contains the information listed in subsection (2), below. At least ninety (90) days prior to commencement of their discharge, new sources, and sources that become industrial users subsequent to the promulgation of an applicable categorical standard, shall be required to submit to the city a report which contains the information listed in paragraph 29-9(b), below. A new source shall also be required to report the method of pretreatment it intends to use to meet applicable pretreatment standards. A new source shall also give estimates of its anticipated flow and quantity of pollutants discharged.

(2) The industrial user shall submit the information required by this section including:

a. *Identifying information.* The name and address of the facility including the name of the operator and owners.

b. *Industrial pretreatment user permits.* A list of any environmental control industrial pretreatment user permits held by or for the facility.

c. *Description of operations.* A brief description of the nature, average rate of production, and standard industrial classifications of the operation(s) carried out by such industrial user. This description should include a schematic process diagram which indicates points of discharge to the POTW from the regulated processes.

d. *Flow measurement.* Information showing the measured average daily and maximum daily flow, in gallons per day, to the POTW from the regulated process streams and other streams, as necessary, to allow use of the combined wastestream formula set out in 40 CFR 403.6(e).

e. *Measurement of pollutants.*

1. Identify the categorical pretreatment standards applicable to each regulated process.

2. Submit the results of sampling and analysis identifying the nature and concentration (and/or mass, where required by the standard or by the city) of regulated pollutants in the discharge from each regulated process. Instantaneous, daily maximum and long term average concentrations (or mass, where required) shall be reported. The sample shall be representative of daily operations and shall be analyzed in accordance with procedures set out in section 29-9(j).

3. Sampling must be performed in accordance with procedures set out in section 29-9(k).

f. *Certification.* A statement reviewed by the industrial user's authorized representative and certified by a qualified professional, indicating whether pretreatment standards are being met on a constant basis, and, if not, whether additional operation and maintenance (O&M) and/or additional pretreatment is required to meet the pretreatment standards and requirements.

g. *Compliance schedule.* If additional pretreatment and/or O&M will be required to meet the pretreatment standards; the shortest schedule by which the industrial user will provide such additional pretreatment and/or O&M. The completion date in this schedule shall not be later than the compliance date established for the applicable pretreatment standards. A compliance schedule pursuant to this section must meet the requirements set out in sections 29-7(f) and 29-13(d) of this article.

h. All baseline monitoring reports must be signed and certified in accordance with section 29-7(g).

(b) *Compliance schedule progress report.* The following conditions shall apply to the schedule required by section 29-9(a)(2)g. The schedule shall contain progress increments in the form of dates for the commencement and completion of major events leading to the construction and operation of additional pretreatment required for the user to meet the applicable pretreatment standards (such events include hiring an engineer, completing preliminary and final plans, executing contracts for major components, commencing and completing construction, beginning and conducting routine operation) No increment referred to above shall exceed nine (9) months. The industrial user shall submit a progress report to the city manager no later than fourteen (14) days following each date in the schedule and the final date of compliance including, as a minimum, whether or not it complied with the increment of progress, the reason for any delay, (and, if appropriate) the steps being taken by the industrial user to return to the established schedule. In no event shall more than nine (9) months elapse between such progress reports to the city manager.

(c) *Report on compliance with categorical pretreatment standards deadline.* Within ninety (90) days following the date for final compliance with applicable categorical pretreatment standards, or in the case of a new source following commencement of the introduction of wastewater into the POTW, any industrial user subject to such pretreatment standards and requirements shall submit to the city a report containing the information described in section 29-9(a)(2)d. through f. For industrial users subject to equivalent mass or concentration limits established in accordance with the procedure in the 40 CFR 403.6(c), this report shall contain a reasonable measure of the industrial user's long term production rate. For all other industrial users subject to categorical pretreatment standards expressed in terms of allowable pollutant discharge per unit of production (or other measure of operation), this report shall include the industrial user's actual production during the appropriate sampling period. All compliance reports must be signed and certified in accordance with section 29-7 (g).

(d) *Periodic compliance reports*

(1) Any significant industrial user subject to a pretreatment standard shall, at a frequency determined by the city manager but in no case less than twice per year (in June and December), submit a report indicating the nature and concentration of pollutants in the discharge which are limited by such pretreatment standards and the measured or estimated average and maximum daily flows for the reporting period. All periodic compliance reports must be signed and certified in accordance with section 29-7(g).

(2) All wastewater samples must be representative of the industrial user's discharge. Wastewater monitoring and flow measurement facilities shall be properly operated, kept clean, and maintained in good working order at all times. The failure of an industrial user to keep its monitoring facility in good working order shall not be grounds for the industrial user to claim that the sample results are unrepresentative of its discharge.

(3) If an industrial user subject to the monitoring requirement in and of this section monitors any pollutant more frequently than required by the POTW, using the procedures prescribed in section 29-9(j) and (k) of this article the results of this monitoring shall be included in the report.

(e) *Report of changed conditions* Each industrial user is required to notify the city manager of any planned significant changes to the industrial user's operations or system which might alter the nature, quality or volume of its wastewater at least sixty (60) days before the change.

(1) The city manager may require the industrial user to submit such information as may be deemed necessary to evaluate the changed condition, including the submission of an industrial pretreatment user permit application under section 29-7(f).

(2) The city manager may issue an industrial pretreatment user permit under section 29-7 (h) or modify an existing discharge permit under section 29-8(d).

(3) No industrial user shall implement the planned changed condition(s) until and unless the city manager has responded to the industrial user's notice.

(4) For purpose of this requirement flow increases of ten (10) percent or greater, and the discharge of any previously unreported pollutants shall be deemed significant.

(f) *Reports of potential problems.*

(1) In the case of any discharge including, but not limited to, accidental discharges, discharges of a nonroutine, episodic nature, a noncustomary batch discharge, or a slug load which may cause potential problems for the POTW (including a violation of the prohibited discharge standards in section 29-4(a) of this article), it is the responsibility of the industrial user to immediately telephone and notify the city manager of the incident. This notification shall include the location of discharge, type of waste, concentration and volume, if known, and corrective actions taken by the industrial user.

(2) Within five (5) days following such discharge, the industrial user shall, unless waived by the city manager, submit a detailed written report describing the cause(s) of the discharge and the measures taken by the industrial user to prevent similar future occurrences. Such notification shall not relieve the industrial user of any expense, loss, damage, or other liability which may be incurred as a result of damage to the POTW, natural resources, or any other damage to person or property; nor shall such notification relieve the industrial user of any fines, civil penalties, or other liability which may be imposed by this article.

(3) Failure to notify the city manager of potential problem discharges shall be deemed a separate violation of this article.

(4) A notice shall be permanently posted on the industrial user's bulletin board or other prominent place advising employees whom to call in the event of a discharge described in subsection (1), above. Employers shall ensure that all employees, who may cause or suffer such a discharge to occur, are advised of the emergency notification procedure.

(g) *Reports from nonsignificant industrial users.* All industrial users not subject to categorical pretreatment standards and not required to obtain an industrial pretreatment user permit shall provide appropriate reports to the city as the city manager may require.

(h) *Notice of violation/repeat sampling reporting.* If sampling performed by an industrial user indicates a violation, the industrial user must notify the control authority within twenty-four (24) hours of becoming aware of the violation. The industrial user shall also repeat the sampling and analysis and submit the results of the repeat sampling and analysis to the control authority within thirty (30) days after becoming aware of the violation. The industrial user is not required to resample if the POTW performs monitoring at the industrial user's at least once a month, or if the POTW performs sampling between the industrial user's initial sampling and when the industrial user receives the results of this sampling.

(i) *Notification of the discharge of hazardous waste.*

(1) Any industrial user who commences the discharge of hazardous waste shall notify the POTW, the EPA Regional Waste Management Division Director, and MDNR Waste Management Program Director in writing of any discharge into the POTW of a

substance which, if otherwise disposed of, would be a hazardous waste under 40 CFR Part 261. Such notification must include the name of the hazardous waste as set forth in 40 CFR Part 261, the EPA hazardous waste number, and the type of discharge (continuous, batch, or other). If the industrial user discharges more than one hundred (100) kilograms of such waste per calendar month to the POTW, the notification shall contain the following information to the extent such information is known and readily available to the industrial user: an identification of the hazardous constituents contained in the wastes, an estimation of the mass and concentration of such constituents in the waste stream discharged during that calendar month, and an estimation of the mass of constituents in the waste stream expected to be discharged during the following twelve (12) months. All notifications must take place no later than one hundred eighty (180) days after the discharge commences. Any notification under this paragraph need be submitted only once for each hazardous waste discharged. However, notifications of changed discharges must be submitted under section 29-9 (e), above. The notification requirement in this section does not apply to pollutants already reported under the self-monitoring requirements of section 29-9(a), (c) and (d) above.

(2) Dischargers are exempt from the requirements of paragraph 29-9(a) of this subsection during a calendar month in which they discharge no more than fifteen (15) kilograms of hazardous wastes, unless the wastes are acute hazardous wastes as specified in 40 CFR 261.30(d) and 261.33(e). Discharge of more than fifteen (15) kilograms of non -acute hazardous wastes in a calendar month, or of any quantity of acute hazardous wastes as specified in 40 CFR 261.30(d) and 261.33(e), requires a one-time notification.

Subsequent months during which the industrial user discharges more than such quantities of any hazardous waste do not require additional notification.

(3) In the case of any new regulations under Section 3001 of RCRA identifying additional characteristics of hazardous waste or listing any additional substance as a hazardous waste, the industrial user must notify the POTW, the EPA Regional Waste Management Waste Division Director, and the MDNR Waste Management Program Director of the discharge of such substance within ninety (90) days of the effective date of such regulations.

(4) In the case of any notification made under this section, the industrial user shall certify that it has a program in place to reduce the volume and toxicity of hazardous wastes generated to the degree it has determined to be economically practical.

(j) *Analytical requirements.* All pollutant analyses, including sampling techniques, to be submitted as part of an industrial pretreatment user permit application or report shall be performed in accordance with the techniques prescribed in 40 CFR Part 136, unless otherwise specified in an applicable categorical pretreatment standard. If 40 CFR Part 136 does not contain sampling or analytical techniques for the pollutant in question, sampling and analyses must be performed in accordance with procedures approved by the EPA.

(k) *Sample collection.*

(1) Except as indicated in subsection (2), below, the industrial user must collect wastewater samples using flow proportional composite collection techniques. In the event flow proportional sampling is infeasible, the city manager may authorize the use of time proportional sampling or through a minimum of four (4) grab samples where the user demonstrates that this will provide a representative sample of the effluent being discharged. In addition, grab samples may be required to show compliance with instantaneous discharge limits.

(2) Samples for oil grease, temperature, pH, cyanide, phenols, toxicity, sulfides, and volatile chemicals must be obtained using grab collection techniques.

(l) *Determination of noncompliance.* The city manager may use a grab sample to determine noncompliance with pretreatment standards.

(m) *Timing.* Written reports will be deemed submitted on the date postmarked. For reports which are not mailed, postage prepaid, into a mail facility serviced by the U.S. Postal Service, the date of receipt of the report shall govern.

(n) *Recordkeeping.* Industrial users shall retain, and make available for inspection and copying, all records of monitoring activities, results and information required to be retained under this article. These records shall remain available for a period of at least three (3) years. This period shall be automatically extended for the duration of any litigation concerning compliance with this article, or where the industrial user has been specifically notified of a longer retention period by the city manager or the control authority.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-10. Compliance monitoring.

(a) *Inspection and sampling.* The city shall have the right to enter the facilities of any industrial user to ascertain whether the purpose of this article, and any permit or order issued hereunder, is being met and whether the industrial user is complying with all requirements thereof. Industrial users shall allow the city manager or his representative ready access to all parts of the premises for the purposes of inspection, sampling, records examination and copying, and the performance of any additional duties.

(1) Where an industrial user has security measures in force which require proper identification and clearance before entry into its premises, the industrial user shall make necessary arrangements with its security guards so that, upon presentation of suitable identification, personnel the city, state, and EPA will be permitted to enter without delay, for the purposes of performing their specific responsibilities.

(2) The city, state, and EPA shall have the right to set up on the industrial user's property, or require installation of, such devices as are necessary to conduct sampling and/or metering of the user's operations.

(3) The city may require the industrial user to install monitoring equipment as necessary. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the industrial user at its own expense. All devices used to measure wastewater flow and quality shall be calibrated periodically to ensure their accuracy.

(4) Any temporary or permanent obstruction to safe and easy access to the industrial facility to be inspected and/or sampled shall be promptly removed by the industrial user at the written or verbal request of the city manager and shall not be replaced. The costs of clearing such access shall be born by the industrial user.

(5) Unreasonable delays in allowing city personnel access to the industrial user's premises shall be a violation of this article.

(6) While performing the necessary work on private properties referred to in section 29-10 (a), the city manager or duly authorized employees of the city shall observe all safety rules applicable to the premises established by the company.

(b) *Search warrants.* If the city manager has been refused access to a building, structure or property or any part thereof, and if the city manager has demonstrated probable cause to believe that there may be a violation of this article or that there is need to inspect as part of a

routine inspection program of the city designed to verify compliance with this article or any permit or order issued hereunder, or to protect the overall public health, safety and welfare of the community, then upon application by the city attorney, the municipal court judge of the city shall issue a search and/or seizure warrant describing therein the specific location subject to warrant. The warrant shall specify what, if anything, may be searched and/or seized on the property by the city manager in the company of a uniformed police office of the city. In the event of an emergency affecting public safety, inspections shall be made without the issuance of a warrant.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-11. Confidential information.

Information and data on an industrial user obtained from reports, surveys, industrial pretreatment user permit applications, industrial pretreatment user permits, and monitoring programs, and from the city inspection and sampling activities, shall be available to the public without restriction, unless the industrial user specifically requests, and is able to demonstrate to the satisfaction of the city manager, that the release of such information would divulge information, processes or methods of production entitled to protection as trade secrets under applicable state law. When requested and demonstrated by the industrial user furnishing a report that such information should be held confidential, the portions of a report which might disclose trade secrets or secret processes shall not be made available for inspection by the public, but shall be made available immediately upon request to governmental agencies for uses related to the NPDES program or pretreatment program, and in enforcement proceedings involving the person furnishing the report. Wastewater constituents and characteristics and other "effluent data" as defined by 40 CFR 2.302 will not be recognized as confidential information and will be available to the public without restriction.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-12. Publication of industrial users in significant noncompliance.

The city shall publish annually, in the largest daily newspaper published in the municipality where the POTW is located, a list of the industrial users which, during the previous twelve (12) months, were in significant noncompliance with applicable pretreatment standards and requirements.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-13. Administrative enforcement remedies.

(a) *Notification of violation.* Whenever the city manager finds that any user has violated or is violating this article, an industrial pretreatment user permit or order issued hereunder, or any other pretreatment requirement, the city manager or his agent may serve upon said user a written notice of violation. Within five (5) days of the receipt of this notice, an explanation of the violation and a plan for the satisfactory correction and prevention thereof, to include specific required actions, shall be submitted by the user to the city manager. Submission of this plan in no way relieves the user of liability from any violations occurring before or after receipt of the notice of violation. Nothing in this section shall limit the authority of the city to take any action, including emergency actions or any other enforcement action, without first issuing a notice of violation.

(b)

Consent orders. The city manager is hereby empowered to enter into consent orders, assurances of voluntary compliance, or other similar documents establishing an agreement with any industrial user responsible for noncompliance. Such orders will include specific action to be taken by the user to correct the noncompliance within a time period also specified by the order. Consent orders shall have the same force and effect as the administrative orders issued pursuant to sections 29-13(d) and 29-13(e) below and shall be judicially enforceable.

(c) *Show cause hearing.* The city manager may order any user which causes or contributes to violation(s) of this article, industrial pretreatment user permits, or orders issued hereunder, or any other pretreatment standard or requirement, to appear before the city manager and show cause why a proposed enforcement action should not be taken. Notice shall be served on the user specifying the time and place for the meeting, the proposed enforcement action, the reasons for such action, and a request that the user show cause why this proposed enforcement action should not be taken. The notice of the meeting shall be served personally or by registered or certified mail (return receipt requested) at least ten (10) days prior to the hearing. Such notice may be served on any authorized representative of the user. Whether or not the user appears as ordered, immediate enforcement action may be pursued following the hearing date. A show cause hearing shall not be a prerequisite for taking any other action against the user.

(d) *Compliance orders.* When the city manager finds that a user has violated or continues to violate this article, industrial pretreatment user permits or, orders issued hereunder, or any other pretreatment standard or requirement, he may issue an order to the industrial user responsible for the discharge directing that the user come into compliance within thirty (30) days. If the user does not come into compliance within thirty (30) days, sewer service shall be discontinued unless adequate treatment facilities, devices, or other related appurtenances are installed and properly operated. Compliance orders may also contain other requirements to address the noncompliance, including additional self-monitoring, and management practices designed to minimize the amount of pollutants discharged to the sewer. A compliance order may not extend the deadline for compliance established for a federal pretreatment standard or requirement, nor does a compliance order release the user of liability for any violation, including any continuing violation. Issuance of a compliance order shall not be a prerequisite to taking other action against the user.

(e) *Cease and desist orders.* When the city manager finds that a user is violating this article, the user's industrial pretreatment user permit, any order issued hereunder, or any other pretreatment standard or requirement, or that the user's past violations are likely to recur, the city manager may issue an order to the user directing it to cease and desist all such violations and directing the user to:

(1) Immediately comply with all requirements.

(2) Take such appropriate remedial or preventive action as may be needed to properly address a continuing or threatened violation, including halting operations and/or terminating the discharge.

Issuance of a cease and desist order shall not be a prerequisite to taking any other action against the user.

(f) *Administrative penalty.*

(1) Notwithstanding any other section of this article, any user that is found to have violated the cease and desist order issued by the city manager shall be penalized in an amount not to exceed one thousand dollars ($1,000.00). Such penalties shall be assessed on a per violation, per day basis. In the case of monthly or other long term

average discharge limits, penalties shall be assessed for each day during the period of violation.

(2) Unpaid penalties shall, after thirty (30) calendar days, be assessed an additional penalty of ten (10) percent of the unpaid balance and interest shall accrue thereafter at a rate ten (10) percent per month. A lien against the individual user property will be sought for unpaid charges and penalties.

(3) Users desiring to dispute such penalty must file a written request for the city manager to reconsider the penalty along with full payment of the penalty amount within sixty (60) days of being notified of the penalty. Where a request has merit, the city manager shall convene a hearing on the matter within thirty (30) days of receiving the request from the industrial user. In the event the user's appeal is successful, the payment together with any interest accruing thereto shall be returned to the industrial user. The city manager may add the costs of preparing administrative enforcement actions such as notices and orders to the penalty.

(4) Issuance of an administrative penalty shall not be prerequisite for taking any other action against the user.

(g) *Emergency suspensions.* The city manager may immediately suspend a user's discharge (after informal notice to the user) whenever such suspension is necessary in order to stop an actual or threatened discharge which reasonably appears to present or cause an imminent or substantial endangerment to the health or welfare of persons. The city manager may also immediately suspend a user's discharge (after notice and opportunity to respond) that threatens to interfere with the operation of the POTW, or which presents or may present an endangerment to the environment.

(1) Any user notified of a suspension of its discharge shall immediately stop or eliminate its contribution. In the event of a user's failure to immediately comply voluntarily with the suspension order, the city manager shall take such steps as deemed necessary, including immediate severance of the sewer connection, to prevent or minimize damage to the POTW, its receiving stream, or endangerment to any individuals. The city manager shall allow the user to recommence its discharge when the user has demonstrated to the satisfaction of the city that the period of endangerment has passed, unless the termination proceedings set forth in section 29-13(h) are initiated against the user.

(2) A user is responsible, in whole or in part, for any discharge presenting imminent endangerment shall submit a detailed written statement describing the causes of the harmful contribution and the measures taken to prevent any future occurrence to the city manager, prior to the date of any show cause or termination hearing under section 29-13(c) and (h).

Nothing in this section shall be interpreted as requiring a hearing prior to any emergency suspension under this section.

(h) *Termination of discharge.* In addition to those provisions in section 29-8(f) of this article, any user that violates the following conditions of this article, industrial pretreatment user permits, or orders issued hereunder, is subject to discharge termination.

(1) Violation of industrial pretreatment user permit conditions.

(2) Failure to accurately report the wastewater constituents and characteristics of its discharge.

(3) Failure to report significant changes in operations or wastewater volume, constituents and characteristics prior to discharge.

(4)

Refusal of reasonable access to the user's premises for the purpose of inspection, monitoring or sampling.

(5) Violation of the pretreatment standards in section 29-4 of this article.

Such user will be notified of the proposed termination of its discharge and be offered an opportunity to show cause under section 29-13(c) of this article why the proposed action should not be taken.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-14. Judicial enforcement; remedies.

(a) *Injunctive relief.* Whenever a user has violated a pretreatment standard or requirement or continues to violate the provisions of this article, industrial pretreatment user permits or orders issued hereunder, or any other pretreatment requirement, the city manager may petition the appropriate court through the city's attorney for the issuance of a temporary or permanent injunction, as appropriate, which restrains or compels the specific performance of the industrial pretreatment user permit, order or other requirement imposed by this article on activities of the industrial user. Such other action as appropriate for legal and/or equitable relief may also be sought by the city. A petition for injunctive relief need not be filed as a prerequisite to taking any other action against a user.

(b) *Civil penalties.*

(1) Any user which has violated or continues to violate this article, any order or industrial pretreatment user permit hereunder, or any other pretreatment standard or requirement shall be liable to the city manager for a maximum penalty of five hundred dollars ($500.00) per violation per day. In the case of monthly or other long-term average discharge limits, penalties shall accrue for each day during the period of the violation.

(2) The city manager may recover reasonable attorney's fees, court costs, and other expenses associated with enforcement activities, including sampling and monitoring expenses, and the cost of any actual damages incurred by the city.

(3) In determining the amount of civil liability, the court shall take into account all relevant circumstances, including, but not limited to, the extent of harm caused by the violation, the magnitude and duration, any economic benefit gained through the user's violation, corrective actions by the user, the compliance history of the user, and any other factor as justice requires.

(4) Filing a suit for civil penalties shall not be a prerequisite for taking any other action against a user.

(c) *Criminal prosecution.*

(1) Any user that willfully or negligently violates any provision of this article, any orders or industrial pretreatment user permits issued hereunder, or any other pretreatment requirement shall, upon conviction, be guilty of a misdemeanor, punishable by penalty of not more than five hundred dollars ($500.00) per violation per day or imprisonment for not more than three (3) months or both.

(2) Any user that willfully or negligently introduces any substance into the POTW which causes personal injury or property damage shall, upon conviction, be guilty of a misdemeanor and be subject to a penalty of at least five hundred dollars ($500.00) and/or be subject to imprisonment for three (3) months. This penalty shall be in addition to any other cause of action for personal injury or property damage available under state law.

(3)

Any user knowingly makes any false statements, representations, or certification in any application, record, report, plan or other documentation filed, or required to be maintained, pursuant to this article, industrial pretreatment user permit or order, or who falsifies, tampers with or knowingly renders inaccurate any monitoring device or method required under this article shall, upon conviction, be punished by a penalty of not more than five hundred dollars ($500.00) per violation per day or imprisonment for not more than three (3) months or both.

(d) *Remedies nonexclusive.* The provisions in sections 29-12 through 29-15 are not exclusive remedies. The city reserves the right to take any, all, or any combination of these actions against a noncompliant user. Enforcement of pretreatment violations will generally be in accordance with the city's enforcement response plan. However, the city reserves the right to take other action against any user when circumstances warrant. Further, the city is empowered to take more than one (1) enforcement action against any noncompliant user. These actions may be taken concurrently.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-15. Supplemental enforcement action.

(a) *Liability insurance.* The city manager may decline to reissue an industrial pretreatment user permit to any user which has failed to comply with the provisions of this article, any order, or a previous industrial pretreatment user permit issued hereunder, unless the user first submits proof that it has obtained financial assurances sufficient to restore or repair damage to the POTW caused by this discharge.

(b) *Water supply severance.* Whenever a user has violated or continues to violate the provisions of this article, orders, or industrial pretreatment user permits issued hereunder, water service to the user may be severed. Service will only recommence, at the user's expense, after it has satisfactorily demonstrated its ability to comply.

(c) *Public nuisances.* Any violation of this article, industrial pretreatment user permits, or orders issued hereunder, is hereby declared a public nuisance and shall be corrected or abated as directed by the city manager. Any person(s) creating a public nuisance shall be subject to the provisions of the City Code governing such nuisances, including reimbursing the city for any costs incurred in removing, abating or remedying said nuisance.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-16. Affirmative defenses to discharge violations.

(a) *Upset.*

(1) For the purpose of this section, "upset" means an exceptional incident in which there is unintentional and temporary noncompliance with categorical pretreatment standards because of factors beyond the reasonable control of the industrial user. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(2) An upset shall constitute an affirmative defense to an action brought for noncompliance with categorical pretreatment standards if the requirements of subsection (3) are met.

(3) An industrial user who wishes to establish the affirmative defense of upset shall demonstrate, through signed, contemporaneous operating logs, or other relevant evidence that:

a. An upset occurred and the industrial user can identify the cause(s) of the upset;

b. The facility was at the time being operated in a prudent and workmanlike manner and in compliance with applicable operation and maintenance procedures;

c. The industrial user submitted the following information to the POTW and treatment plant operator within twenty-four (24) hours of becoming aware of the upset, if this information is provided orally, a written submission must be provided within five (5) days:

1. A description of the indirect discharge and cause of noncompliance.
2. The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue.
3. Steps being taken and/or planned to reduce, eliminate and prevent recurrence of the noncompliance.
4. In any enforcement proceeding, the industrial user seeking to establish the occurrence of an upset shall have the burden of proof.
5. Industrial users will have the opportunity for a judicial determination on any claim of upset in an enforcement action brought for noncompliance with categorical pretreatment standards.
6. The industrial user shall control production or all discharges to the extent necessary to maintain compliance with categorical pretreatment standards upon reduction, loss, or failure of its treatment facility until the facility is restored or an alternative method of treatment is provided. The requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost or fails.

(b) *General/specific prohibitions.* An industrial user shall have an affirmative defense to an enforcement action brought against it for noncompliance with the general and specific prohibitions in section 29-4(a) of this article if it can prove that it did not know or have reason to know that its discharge, along or in conjunction with discharge from other sources, would cause pass through or interference and that either:

(1) A local limit exists for each pollutant discharged and the industrial user was in compliance with each limit directly prior to, and during the pass through or interference, or

(2) No local limit exists, but the discharge did not change substantially in nature or constituents from the user's prior discharge when the city was regularly in compliance with its NPDES permit, and in the case of interference, was in compliance with applicable sludge use or disposal requirements.

(c) *Bypass.*

(1) An industrial user may allow any bypass to occur which does not cause pretreatment standards or requirements to be violated, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of subsections (2) and (3) of this section.

a. If an industrial user knows in advance of the need for a bypass, it shall submit prior notice to the POTW, at least ten (10) days before the date of the bypass if possible.

b. An industrial user shall submit oral notice of an unanticipated bypass that exceeds applicable pretreatment standards to the POTW within twenty-four

(24) hours from the time it became aware of the bypass. A written submission shall also be provided with five (5) days of the time the industrial user becomes aware of the bypass. The written submission shall contain a description of the bypass, including exact dates and times, and, if the bypass has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass. The POTW may waive the written report on a case-by-case basis if the oral report has been received within twenty-four (24) hours.

(2) Bypass is prohibited, and the POTW may take enforcement action against an industrial user for a bypass, unless:

a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

c. The industrial user submitted notices as required under subsection (2) of this section.

(3) The POTW may approve an anticipated bypass, after considering its adverse effects, if the POTW determines that it will meet the three (3) conditions listed in subsection (3)a. of this section.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-17. Miscellaneous provisions.

(a) *Pretreatment charges and fees.* The city may adopt reasonable charges and fees for the reimbursement of costs of setting up and operating the city's industrial pretreatment program.

(1) Fees for industrial pretreatment user permit applications including the cost of processing such applications.

(2) Fees for monitoring, inspection, and surveillance procedures including the costs of collection and analyzing an industrial user's discharge, and reviewing monitoring reports submitted by industrial users.

(3) Fees for reviewing and responding to accidental discharge procedures and construction.

(4) Fees for filing appeals.

(5) Fees for dumping hauled septage and industrial waste.

(6) Other fees as the city may deem necessary to carry out the requirements contained herein. These fees relate solely to the matters covered by this article and are separate from all other fees, and penalties chargeable by the city.

(b) *Severability.* If any provision of this article is invalidated by any court of competent jurisdiction, the remaining provisions shall not be affected and shall continue in full force and effect.

(c) *Conflicts.* All other ordinances and parts of other ordinances inconsistent or conflicting with any part of this article, are hereby repealed to the extent of the inconsistency or conflict.

(Ord. No. 4255, art. 1, 8-15-11)

DIVISION 2. PRIVATE SERVICE LINES AND CONNECTIONS

Sec. 29-18. Connections to surface water, groundwater sources prohibited.
Sec. 29-19. Duty of owner to connect to public sewer; time limitation.
Sec. 29-20. Penalty for violation of provisions.

Sec. 29-18. Connections to surface water, groundwater sources prohibited.

(a) Connections to sanitary sewers which terminate in basements of uncompleted buildings shall be tightly stopped so as to prevent the entrance of surface water into the sanitary sewer. Uncovered basements collecting rainwater, or water from other sources, must be dewatered by the pumping of same. In no event may such water enter a sanitary sewer.

(b) Existing sewer connections to sanitary sewers, which carry water from roof drains, yard drains and uncovered areaways, shall be so altered as to permit the passage of sanitary sewage only. Roof drains shall be arranged to discharge on the surface of the ground a minimum of four (4) feet behind the right-of-way line.

(c) No person shall make connection of roof downspouts, exterior foundation drains areaway drains or other sources of surface runoff or groundwater to a building service line or building drain which in turn is connected directly or indirectly to a public sanitary sewer.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-19. Duty of owner to connect to public sewer; time limitation.

Where sanitary sewers exist, or are constructed in the city, it shall be the duty of the owner of the property to connect same to the public sewer at his expense, provided such public sewer is within two hundred (200) feet of the property line. Such connection shall be made within ninety (90) days after date of official notice from city manager.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-20. Penalty for violation of provisions.

Any owner mentioned above, who shall violate any of the provisions of this article, shall be deemed guilty of a misdemeanor, and upon conviction shall be punished as prescribed in section 1-8 of this Code.

(Ord. No. 4255, art. 1, 8-15-11)

DIVISION 3. USE OF PUBLIC SEWERS

Sec. 29-21. Unlawful to discharge stormwater, surface water, etc., into sanitary sewer.
Sec. 29-22. Procedure for discharge of stormwater, unpolluted drainage, industrial cooling water.
Sec. 29-23. Unlawful to deposit any waste, other objectionable material upon public, private premises.
Sec. 29-24. Unlawful to discharge sewage, other polluted waters.
Sec. 29-25. Unlawful to construct, maintain privy, cesspool, etc., for disposal of sewage.
Sec. 29-26. Duty of owners to install toilet facilities.
Sec. 29-27. Control manholes; maintenance and operation.
Sec. 29-28. Use of grease and sand interceptors.

Sec. 29-21. Unlawful to discharge stormwater, surface water, etc., into sanitary sewer.

No person shall discharge or cause to be discharged any stormwater, surface water, groundwater, roof runoff, subsurface drainage, uncontaminated cooling water or unpolluted industrial process waters to any sanitary sewer.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-22. Procedure for discharge of stormwater, unpolluted drainage, industrial cooling water.

Stormwater and all other unpolluted drainage shall be discharged to such sewers as are specifically designated as storm sewers, or to a natural outlet approved by the city manager. Industrial cooling water or unpolluted process waters may be discharged, on approval of the city manager, to a storm sewer, or natural outlet.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-23. Unlawful to deposit any waste, other objectionable material upon public, private premises.

It shall be unlawful for any person to place, deposit or permit to be deposited in any unsanitary manner on public or private property within the city or in any area under the jurisdiction of the city, any human or animal excrement, garbage or other objectionable waste.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-24. Unlawful to discharge sewage, other polluted waters.

It shall be unlawful to discharge to any natural outlet within the city, or in any area under the jurisdiction of the city, any sewage or other polluted waters, except where suitable treatment has been provided in accordance with subsequent provisions of this article.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-25. Unlawful to construct, maintain privy, cesspool, etc., for disposal of sewage.

Except as otherwise provided in this article, it shall be unlawful to construct or maintain any privy, privy vault, septic tank, cesspool or other facility intended or used for the disposal of sewage.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-26. Duty of owners to install toilet facilities.

(a) Except as set forth in subsection (b) herein, the owner of all houses, buildings or properties used for human occupancy, employment, recreation or other purposes, situated within the city and abutting on any street, alley or right-of-way in which there is now located or may in the future be located a public sanitary sewer of the city, is hereby required at his expense to install suitable toilet facilities therein, and to connect such facilities directly with the proper public sewer in accordance with the provisions of this article, within ninety (90) days after date of official notice to do so, provided that the public sewer is within two hundred (200) feet of the property line.

(b) The requirements contained in subsection (a) of this section shall not apply to private sewage disposal systems or septic tanks in existence prior to January 31, 2003, unless that private system or septic tank ceases to function or becomes a health hazard or nuisance as defined by applicable law.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-27. Control manholes; maintenance and operation.

The owner of any commercial or industrial property serviced by a building sewer shall install a suitable control manhole together with such necessary meters and other appurtenances in the building sewer to facilitate observation, sampling and measurement of the wastes. Such manhole shall be accessibly and safely located, and shall be constructed in accordance with plans approved by the city manager. The manhole shall be installed by the owner at his expense, and shall be maintained by him so as to be safe and accessible at all times.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-28. Use of grease and sand interceptors.

Grease, oil and sand interceptors shall be provided when, in the opinion of the city manager, they are necessary for the proper handling of liquid wastes containing grease in excessive amounts, or any flammable wastes, sand or other harmful ingredients; except that such interceptors shall not be required for private living quarters or dwelling units. All interceptors shall meet the requirements set forth in section 29-5.

(Ord. No. 4255, art. 1, 8-15-11)

DIVISION 4. ACCOUNTS AND BILLING

Sec. 29-29. Classification of users.
Sec. 29-30. Sewer service charges.

Sec. 29-31. Determination of amount of use.
Sec. 29-32. Determination of extra strength.
Sec. 29-33. Review of user charge rate structure.
Sec. 29-34. Billing; payment; delinquency; penalty.
Sec. 29-35. Disconnection.
Sec. 29-36. Owners and occupants jointly liable; authority of city to sue.
Sec. 29-37. Septic tank users.
Sec. 29-38. Notification.
Sec. 29-39. Use of funds.
Sec. 29-40. Unlawful to tamper.
Sec. 29-41. Failure to pay sewer service charge.

Sec. 29-29. Classification of users.

(a) Users of the sewage system are hereby classified in the following manner:

(1) *Residential.* Residential users of any structure which is used exclusively as a dwelling. Users of a portion of a structure which portion is separately metered for water use and is used exclusively as a dwelling are also classified as residential users. Residential users shall not include the users of hotels, motels, boardinghouses, nursing homes or residence halls.

(2) *Commercial and industrial.* Commercial and industrial users are all users of the system other than residential users.

(3) *Temporary construction.* Temporary construction users are construction site users during construction and prior to occupancy of new residential structures or new commercial and industrial structures or buildings. Temporary construction users are not users for construction projects located at, or additions made to, any existing structure or building.

(b) Revenue received from sewage service charges shall be accounted for according to the above user classifications.

(Ord. No. 4255, art. 1, 8-15-11; Ord. No. 4345, art. 1, 8-6-12)

Sec. 29-30. Sewer service charges.

(a) *Levied.* There is hereby levied on each sewage system user having any sewer connection with the sewage system of the city or otherwise discharging sewage, industrial waste, or other liquids, either directly or indirectly into the city's sewage system, a sewage service charge. Subject to the exceptions provided in this chapter, such charge shall be based upon the quantity of water used in or on the premises as the same is measured by a water or sewage meter or meters approved by the city. Additional charges for extra strength sewage, toxic pollutants, and wastewater monitoring will be levied where applicable.

(b) *Basic sewer service charge.*

(1) Residential and commercial and industrial users of the sewage system of the city shall pay for the use of such system based on the following schedule of rates:

	User Charge Portion	Capital Charge Portion	Total
Service Charge:	$3.32 monthly bill	$9.87 monthly bill	$13.19 monthly bill

Quantity Charge: All Volume	$2.59/Ccf	$0.41/Ccf	$3.00/Ccf

Quantity charges for residential users shall be based on the average monthly water usage during the immediate preceding months of January, February and March. When a residential user does not have a history of water usage for the immediate preceding January, February and March or when a residence is not properly metered, the quantity charge shall be computed on the basis of average water usage for the entire residential class. Charges for commercial and industrial users shall be based on one hundred (100) percent of the monthly metered water used except as otherwise provided in section 29-31.

(2) Beginning August 20, 2012, temporary construction users of the sewage system of the city shall pay for the use of such system based on the following schedule of rates:

	User Charge Portion	Capital Charge Portion	Total
Service Charge:	$3.32 monthly bill	$9.87 monthly bill	$13.19 monthly bill

(c) *Extra strength charge.* Wastewater discharged to the sewage system from commercial or industrial users shall be subject to an extra strength charge when the BOD or suspended solids concentration exceeds three hundred (300) milligrams per liter (mg/l) by weight. All analyses shall be performed on composite samples collected at no less than hourly intervals over a twenty-four-[hour] period. Extra strength charges shall be calculated based on one hundred (100) percent of metered water use, except as otherwise provided in section 29-31, in accordance with the following formula:

$S = Vs \times 0.00624 \times [\$0.112 (BOD - 300) + \$0.090 (SS-300)]$

Where:

S	=Surcharge in dollars monthly.
Vs	=Sewage volume in one hundred (100) cubic feet per month.
0.00624	=Conversion factor for one hundred (100) cubic feet to million pounds.
$0.112	=Unit charge for BOD in dollars per pound; of which $0.108 represents the user charge portion and $0.004 represents capital charges.
BOD	=BOD strength index in mg/l by weight.
300	=Allowed BOD and suspended solids strengths in mg/l by weight.
$0.090	=Unit charge for suspended solids in dollars per pound; of which $0.088 represents the user charge portion and $0.002 represents capital charges.
SS	=Suspended solids strength index in mg/l by weight.

(d) *Monitoring charge.* When regulations as set forth by federal, state and city require monitoring of the waste from a commercial or industrial user whether for strength calculations or for national pollutant discharge elimination system compliance, that user shall pay a monitoring charge. The monitoring charge shall consist of all costs for personnel, material and

equipment used to collect and analyze samples from the user's sewage. The exact charge shall be based on actual costs and shall be determined by the city.

(e) *Toxic pollutant charge.* Any user which discharges any toxic pollutants which cause an increase in the cost of managing effluent or sludge from the city's treatment system shall pay for such increased costs.

(Ord. No. 4255, art. 1, 8-15-11; Ord. No. 4345, art. 2, 8-6-12)

Sec. 29-31. Determination of amount of use.

(a) The amount of sewage discharged to the sewage system of the city shall be determined by the quantity of water metered to the user. In the case of a single user whose water usage is measured by several meters, the total water usage for all the meters shall be the basis on which sewer service charges are computed and not on the basis of each separate meter reading. Each person from whose property or premises sewage in any quantity is discharged into the sewage system of the city but whose water usage is not metered, is hereby required to meter, at its source, at their own expense, the quantity of water used, with an appropriate meter to be approved by the city, and to pay a monthly sewer service charge based upon the amount of water thus metered, to be computed in like manner as provided in section 29-30

(b) If a commercial or industrial user desires to establish eligibility for a sewage service volume base of less than one hundred (100) percent of monthly water usage he may at his sole expense:

(1) Install a sewage meter acceptable to the city to measure the volume of liquid actually discharged into the sewage system from his premises. Such meter shall be maintained and calibrated by the user and the readings from the meter shall be taken at least once monthly and shall be provided to the city on a monthly basis. In the event a sewage meter is installed, the rate schedule as set forth in section 29-30 shall be applied to:

a. The volume of sewage entering the sewage system as measured by the meter; or

b. A calculated volume based on the percentage of metered water usage discharged to the sewage system as determined by the historical comparison of water usage and metered sewage.

(2) In lieu of a sewage meter the user may install auxiliary water meter(s) to measure that portion of water used which is diverted from entering the sewage system. In the event an auxiliary water meter is installed the volume of water metered by such meter(s) shall be deducted from the total volume of water usage before the sewer service rate schedule is applied.

(c) No refunds, allowances or reductions from the one hundred (100) percent water use base will be granted commercial or industrial users for any time period prior to approval of a sewage metering or diverted water metering system.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-32. Determination of extra strength.

(a) The city will perform analyses at intervals no greater than twelve (12) months to determine the strength of sewage discharged by commercial and industrial users who discharge an annual average volume of twenty-five thousand (25,000) gallons or more of sewage per day and whose wastes are subject to extra strength charges. Industrial and commercial users who discharge an average of less than twenty-five thousand (25,000) gallons per day and

whose wastes are subject to extra strength charges shall have their wastes analyzed as often as deemed necessary by the city to obtain representative samples.

(b) If any industrial or commercial user chooses not to accept the analytical determination made by the city they may at their sole expense employ an independent laboratory, acceptable to the city, to conduct sampling and analysis of their sewage. The time period and location for the collection of the samples shall be designated by the city. The city and the independent laboratory shall both preside over the collection of the samples and shall equally divide the final composite so that duplicate analyses may be made.

(c) If results of the analyses of the sewage sample made by both the city and the independent laboratory are not comparable, the city may appoint a second independent laboratory to analyze the sewage. The sampling procedures used will be the same as those outlined above. The results of these analyses together with the previous results shall be used to determine the actual extra strength charges. The fee for the second independent laboratory analysis shall be shared equally between the city and the user.

(d) If any industrial or commercial user improves the quality of their discharged sewage, the city will reevaluate the strength of the sewage if requested to do so by the user. The user will pay an additional monitoring charge for the necessary sampling and analysis.

(e) The city shall have the right to enter into all premises served by the sewage system of the city, for the purpose of inspecting, reading or otherwise examining all meters and appurtenances involved in the recording of water received on the premises or sewage discharged therefrom, or to collect samples for analysis of sewage discharged therefrom. If the city is denied entry to any such premises it may disconnect sewer services for such premises from the city's sewage system.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-33. Review of user charge rate structure.

The user charge rate schedule shall be reviewed and adjusted, if necessary, at least biennially to:

(1) Maintain the proportional distribution of operation, maintenance and replacement (OM&R) costs among user classes.

(2) Provide adequate revenues to cover OM&R and capital costs.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-34. Billing; payment; delinquency; penalty.

(a) The city finance director, or such other officer or representative of the city as may be designated from time to time, shall be responsible for calculating the amount of and rendering monthly bills for sewage service. The city shall collect the bills for sewage service.

(b) All service bills shall be due and payable in full fourteen (14) days from the date the bill was rendered and shall be considered delinquent after twenty-one (21) days. If the last day for remittance falls upon a weekend or holiday, or any other day when the offices of the department, regularly used for the payment of customer bills, are not open to the general public, the final payment date shall be extended through to the close of the next business day. The date of payment for remittance through the mail shall be the date on which the department receives the remittance. All accounts which become delinquent shall be charged a ten (10) percent penalty.

(c)

The city finance director shall keep a list of all delinquent sewage service accounts. The list shall include a legal description of the real property enjoying the use of the sewage system and the amount of the sewage charge plus penalty remaining unpaid. Delinquent sewage service accounts so listed shall constitute a lien upon the real property so served. The lien shall be enforced and the amounts owing shall be collected in the same manner as delinquent real estate taxes.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-35. Disconnection.

In the event an account declared delinquent has not been paid in full within three (3) months of the initial due date, the city may disconnect sewer services from such premises from the city's sewer system. The location of the disconnection shall be at the discretion of the city. The sewer may be reconnected to the city's sewage system by the affected property owner, who shall bear the entire expense of all costs for the reconnection, providing the delinquent account has been paid in full and that the city has been reimbursed in full for all costs borne by the city resulting from disconnecting the sewer.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-36. Owners and occupants jointly liable; authority of city to sue.

The owners and occupants of individual premises served by the sewage system shall be jointly and severally liable to pay for sewage services to the premises. The city shall have the power to file a civil lawsuit against the owners or occupants or both to recover all sums due and, in addition thereto, a reasonable attorney's fee.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-37. Septic tank users.

(a) Septic tank users who do not use the sewage system of the city shall not be obligated to pay sewer service charges unless those public sewer services are reasonably available to such septic tank users, in which event such septic tank users shall be liable for sewer service charges.

(b) For purposes of this section, a public sewer shall be deemed to be reasonably available if it is within two hundred (200) feet of the property line of a property served by a private sewage disposal system or septic tank.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-38. Notification.

All users of the sewage system shall be notified at least annually as to:

(1) The rate schedule in effect.

(2) That part of total charges attributable to user charges for sewage treatment service.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-39. Use of funds.

The monies received from the collection of the sewer service charge as provided in this article shall be used only for the following purposes:

(1) If there are outstanding sewage system revenue bonds, the moneys received shall be used only in accordance with the provisions of the terms of the ordinance or ordinances authorizing issuance of the bonds.

(2) If there are no outstanding sewage system revenue bonds, the moneys received shall be used only to pay the costs and liabilities incurred in operating, maintaining and replacing the city's sewage collection and treatment facilities and to pay all cost of carrying out the provisions of this article.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-40. Unlawful to tamper.

It shall be unlawful for any person to tamper with any sewer line or to reconnect sewer services when services have been disconnected for nonpayment of a bill for sewer services, unless such bill for sewer services has been paid in full. Such offense shall be punished by a fine not exceeding five hundred dollars ($500.00) or by imprisonment not exceeding three (3) months, or by both such fine and imprisonment.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-41. Failure to pay sewer service charge.

It shall be unlawful for any user to fail to pay the sewer service charge established in this article and such offense shall be punished by a fine not exceeding five hundred dollars ($500.00).

(Ord. No. 4255, art. 1, 8-15-11)

DIVISION 5. PRIVATE SEWAGE DISPOSAL

Sec. 29-42. When required.
Sec. 29-43. Permit required; application; fee.
Sec. 29-44. Inspection by city manager.
Sec. 29-45. Requirements when public sewer available.
Sec. 29-46. Facilities to be kept sanitary.
Sec. 29-47. Additional requirements of health officer.
Sec. 29-48. Individual sewage disposal systems for homes and other establishments where public sewage systems are not available.
Sec. 29-49. Rules and regulations of the county public health department.
Secs. 29-50—29-59. Reserved.

Sec. 29-42. When required.

When a public sanitary sewer is not available under the provisions of section 29-45, the building sewer shall be connected to a private sewage disposal system complying with the provisions of this article.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-43. Permit required; application; fee.

Before commencement of construction of a private sewage disposal system the owner shall first obtain a written permit signed by the city manager. The application for such permit shall be made on a form furnished by the city, which the applicant shall supplement by any plans, specifications, and other information as are deemed necessary by the city manager.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-44. Inspection by city manager.

A permit for a private sewage disposal system shall not become effective until the installation is completed to the satisfaction of the city manager. He shall be allowed to inspect the work at any stage of construction and, in any event, the applicant for the permit shall notify the city manager when the work is ready for final inspection, and before any underground portions are covered. The inspection shall be made within forty-eight (48) hours of the receipt of notice by the city manager.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-45. Requirements when public sewer available.

(a) At such time as a public sewer becomes available to a property served by a private sewage disposal system, a direct connection shall be made to the public sewer in compliance with this article, and any septic tanks, cesspools and similar private sewage disposal facilities shall be abandoned and filled with suitable material.

(b) When a public sewer becomes available, the building sewer shall be connected to such sewer within ninety (90) days after date of official notice to do so and the private sewage disposal system shall be cleaned of sludge and filled with clean bank-run gravel or dirt.

(c) For purposes of this section, a public sewer shall be deemed to be available if it is within two hundred (200) feet of the property line of a property served by a private sewage disposal system or septic tank.

(d) The requirements contained in subsections (a) and (b) of this section shall not apply to private sewage disposal systems or septic tanks in existence prior to January 31, 2003, unless that private system or septic tank ceases to function or becomes a health hazard or nuisance as defined by applicable law.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-46. Facilities to be kept sanitary.

(a) The owner shall operate and maintain the private sewage disposal facilities in a sanitary manner at all times, at no expense to the city.

(b) Wastewater or septic tank haulers shall not discharge any waste within the corporate boundaries of the city except as permitted by the city manager. All wastewater or septic tank haulers shall, in addition to all other requirements for wastewater and septic tank haulers,

apply for a wastewater discharge permit in the manner and form prescribed by the city manager prior to discharging such wastes to the city sewerage system.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-47. Additional requirements of health officer.

No statement contained in this article shall be construed to interfere with any additional requirements that may be imposed by the health officer.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-48. Individual sewage disposal systems for homes and other establishments where public sewage systems are not available.

(a) Where public water is available but no public sewage system is available:

(1) The minimum lot size in which a private disposal system may be installed is fifteen thousand (15,000) square feet.

(2) Required lot size with private water system in which a private disposal system may be installed is twenty thousand (20,000) square feet.

(b) For purposes of this section, a public sewage system shall be deemed to be available if it is within two hundred (200) feet of the property line of a property served by a private sewage disposal system or septic tank.

(Ord. No. 4255, art. 1, 8-15-11)

Sec. 29-49. Rules and regulations of the county public health department.

In addition to the requirements set out in the Code of Ordinances of the City of Cape Girardeau, the construction, modification, repair and location of on-site sewage systems shall also be governed by the rules and regulations of the Cape Girardeau County Public Health Department, including requirements for licenses for installers and permits for discharges of three thousand (3,000) gallons or less per day.

(Ord. No. 4255, art. 1, 8-15-11)

Secs. 29-50—29-59. Reserved.

Appendix 4

Procedures & Policies Manual

City of Cape Girardeau, Mo

MS4 Policies and Procedures Manual

Dec 2013

Table of Contents

Stormwater Plan Review Procedures 3

Construction Inspections Procedures 4

Post Construction Inspection Procedures & Policies 5

Illicit Discharge Detection & Elimination Procedures & Policies 6

Procedures for Back Tracking Illicit Discharges 6
Procedures for Outfall Reconnaissance Inventory 7

Good Housekeeping Procedures & Policies 8

Used Oil Program 8
Used Materials Recycling 8
Snow and Ice Controls 8

Stormwater Plan Review Procedures

The City code requires developers to have a pre-design / pre-development meeting with City staff for purposes of review of the site. Discussion points include, but are not limited to:

- Sensitive areas of the site to be protected, such as streams and undisturbed timber areas
- Code requirements for water quality considerations
  - Applicable BMP's
  - 1 inch rain event runoff capture and treatment
  - SWPPP preparation
  - Flood control detention requirements
  - Sediment and erosion controls during construction phases
- Post Construction elements for long term runoff water quality
- Limitation of clearing and soil disturbance
- Necessary operation and maintenance considerations for stormwater elements of the site plan

The developer then prepares the site plans and submits them for review by City staff.

Usually at least two staff members are involved in the plan review.
Plans are checked for compliance with the various code requirements.

Any questions or deficiencies are noted and communicated back to the developer / designer.

Plans are revised and resubmitted until the plan meets the necessary goals and requirements

The stormwater permit is then issued to the developer.

Construction Inspections Procedures

When a stormwater permit is issued the appropriate party is notified and given copies of the approved site plans. This would be the Stormwater Coordinator, the Engineering Department inspector, or the Inspections Division inspector. The Engineering Department does the inspections for developments that include infrastructure that will become property of the City. The Inspections Division performs inspections on any residential developments (single family or multi family). The Stormwater Coordinator performs inspections on commercial development sites.

The City inspector adds the site to list of sites to be checked.

The City inspector then watches the site to insure the perimeter controls and other BMP's are properly set prior to construction starting.

The City inspector performs the periodic inspections for the site using the checklist as a guide. The inspection is properly documented.

Any concerns or deficiencies are reported to the contractor verbally or in writing. These are noted for attention in follow-up inspections.

Inspection records are kept in paper form and in a computer database in each division.

Should the contractor fail to comply with the necessary corrective actions the City inspector is to follow the enforcement protocol included in the City code in Ch. 23. this calls for verbal warning, then a written warning with a specific compliance date and time indicated, then a stop work order can be issued, and then a summons to court can be issued. For the last two step sin the enforcement process the Nuisance Abatement officials are included in the process.

Once the site work is complete and any open soils are properly covered or protected by vegetation the site is noted as being closed and no more construction inspections are required.

Before the certificate of occupancy for the site issued the developer is required to have his designer provide to the City written confirmation that all stormwater elements are installed per the approved plans. The developer is also required to provide Record Drawings to the City Engineering Department for the stormwater elements on the site.

Post Construction Inspection Procedures & Policies

Most sites will have Post Construction BMP's or elements as part of the site development plan. These are to be inspected during the construction phase by the site construction inspector. Part of that process is to insure the elements are properly installed.

The Stormwater Coordinator is to have a database of the post construction elements for tracking purposes.

City code requires that the owner perform an annual inspection of their post construction water quality elements to determine proper function and to see if an repairs or maintenance actions are necessary. The owner is to file the inspection report with the City Stormwater Coordinator for record purposes.

The City Stormwater Coordinator or other competent City staff is to perform periodic inspections of the post construction water quality elements within the 5 year period of the active MS4 permit. Any deficiencies are to be reported to the owner for corrective actions.

Policies

When site development includes new drainage inlets the City code requires developers to use frames with the "Do Not Dump… Drains To River" message cast into the frame.

Illicit Discharge Detection & Elimination Procedures & Policies

Procedures for Back Tracking Illicit Discharges

Once an illicit discharge is discovered the City sewer or stormwater crew will begin the process to track the evidence upstream to determine a source.

The City crew will track the evidence by various means as necessary. This could be on foot or by vehicle. When conveyance structures are underground the crew will use pipeline tv apparatus to track the evidence.

Once the upstream limit of the discharge is determined the crew will study the area to see what the possible sources may be. This will include an assessment of area businesses and residential locations. Consideration of the evidence's nature will be used to narrow the possible sources search.

Should the discharge be sufficiently large to threaten aquatic life or the ell being of residents in the area of the stream, or prove to be difficult in tracking, the MODNR office in Poplar Bluff will be notified to request their assistance.

Once the source of the discharge is determined the owner will be notified of the findings. If any charges for clean up or corrections are in order the owner will be notified promptly. If an legal actions are necessary the proper authorities will be contacted to perform those duties.

The owner will be advised to determine how the discharge occurred and to take proper educational and preventative actions to prevent any future occurrences.

Proper actions to correct or clean the impacted areas will be implemented as quickly as possible.

Procedures for Outfall Reconnaissance Inventory

The Stormwater Coordinator will work with the City GIS staff to identify the outfalls from the MS4 into the various streams and local waterways. These will be given unique identifiers and charted in the GIs mapping system for tracking purposes.

Once the list of outfalls is developed the Stormwater Coordinator will prepare a schedule for performing dry weather investigations of each outfall for inventory purposes. This dry weather inspection will include getting a photo of the outfall with its unique ID information, making a visual assessment of the condition of the outfall, specific focus will be:

observe the structure for any stains that would indicate a previous illicit discharge
observation of the receiving stream conditions
logging in the exact location with GPs equipment for Lat / Lon data

If any flows are observed record:

Flow rate
Temperature, pH, conductivity, and turbidity
Any odors, colors, floatables present

Once the outfalls are inventoried the Stormwater Coordinator will work with the GIS staff to catalog the data in the GIS system.

Any signs of illicit discharges will be investigated to determine if a source can be indentified. Appropriate actions will be followed as described above. Appropriate enforcement actions will be taken as described in the City Codes.

Good Housekeeping Procedures & Policies

Used Oil Program

The City has an authorized Used Oil Do It Yourself Collection program. Documentation is on file from the MO DNR dated 6-24-09.

The City uses oil from its own maintenance operations to be burned in used oil heaters for the maintenance shop area in the recycling center building.

The City also accepts used oil from citizens who bring used oil from their do it yourself activities. The citizen may bring their oil to the maintenance shop where it will be turned over to a shop employee to be dumped. The citizen must sign a log sheet listing the date, their name, what the product is and the estimated quantity.

The used oil storage tanks are included in the SPCC for the fleet maintenance area. The tanks are either double wall or have outer containment. The tanks are inside the building.

Monthly inspections are conducted and documented as required by the SPCC for the fleet maintenance area.

Used Materials Recycling

The Public Works Department recycles many products that result from maintenance operations. Tires, batteries, and used oil are recycled.

The City has a very successful solid waste recycling program. This program takes the usual "garbage type" recyclables. It also accepts old appliances.

Snow and Ice Controls

The City has a salt dome for protected storage of salt year round. The salt spreaders that are used are calibrated to the vehicle speed to minimize over spreading salt onto the roadways. The City also uses brine solution and calcium chloride as much as possible to reduce the pollution effect of snow and ice controls.

Appendix 5

SWPPP Template

City of Cape Girardeau - Construction Site SWPPP Template

September 2012

This SWPPP Template is provided for use with proposed construction projects in the City of Cape Girardeau. It is modified from the EPA SWPPP Template. The City of Cape Girardeau staff has modified the EPA SWPPP Template by removing the instruction boxes and customizing it to the City of Cape Girardeau where possible. Should there be questions about the content or information requested it is recommended you refer to the EPA SWPPP Template with the instructions, the Missouri DNR General Permit (MORA), and the EPA Construction General Permit (CGP). These documents provide guidance for the required information. All of these documents can be accessed on the City of Cape Girardeau website at www.cityofcapegirardeau.org/CityHall/Engineering.aspx.

Note: Section references within the template (such as Part 2.1.2.1.e) are referencing the EPA CGP. A link to the EPA CGP is available at the City website. Also, references to Appendices are to the CGP document.

Using the SWPPP Template

Each section of the SWPPP Template provides space for your project and site information. The SWPPP Template has been developed as an editable document file so that you can easily add tables and additional text, and delete unneeded or non-applicable fields. Note that some sections may require only a brief description while others may require several pages of explanation.

The following tips for using this template will help you ensure that the minimum permit requirements are met:

- **Be familiar with the Missouri DNR Land Disturbance Permit and the Missouri DNR General Permit (MORA)** . This will help ensure that you have a working understanding of the SWPPP requirements.
- If there is more than one construction operator for your project, consider coordinating development of your SWPPP with the other operators. However, while multiple operators may share the same SWPPP, make sure that responsibilities and scope of work are clearly described for each operator.
- Once you have received approval of the SWPPP and the local Stormwater Permit, include your NOI and a copy of the approved permit as attachments to the SWPPP. See Attachments B and C of this SWPPP Template.

The City of Cape Girardeau notes that while we have made every effort to ensure the accuracy of this SWPPP Template, the actual obligations of regulated construction activities are determined by the relevant provisions of the permit, not by the Template. In the event of a conflict between the SWPPP Template and any corresponding provision of the Missouri DNR Land Disturbance Permit the Missouri DNR General Permit (MORA), or the EPA 2012 CGP, you must abide by the requirements in the permit. The City of Cape Girardeau welcomes comments on the SWPPP Template at any time and will consider those comments in any future revision of this document. Comments should be directed to the City of Cape Girardeau Department of Development Services.

Stormwater Pollution Prevention Plan (SWPPP)

For Construction Activities At:

Insert Project/Site Name
Insert Project Site Location/Address
Insert City, State, Zip Code
Insert Project/Site Telephone Number

SWPPP Prepared For:

Insert Company or Organization Name
Insert Name
Insert Address
Insert City, State, Zip Code
Insert Telephone Number
Insert Fax/Email

SWPPP Prepared By:

Insert Company or Organization Name
Insert Name
Insert Address
Insert City, State, Zip Code
Insert Telephone Number
Insert Fax/Email

SWPPP Preparation Date:

__ __ / __ __ / __ __ __ __

Estimated Project Dates:

Project Start Date: __ __ / __ __ / __ __ __ __
Project Completion Date: __ __ / __ __ / __ __ __ __

Contents

SECTION 1: CONTACT INFORMATION/RESPONSIBLE PARTIES 1
1.1 Operator(s) / Subcontractor(s) 1
1.2 Stormwater Team 2
SECTION 2: SITE EVALUATION, ASSESSMENT, AND PLANNING 3
2.1 Project/Site Information 3
2.2 Discharge Information 4
2.3 Nature of the Construction Activity 6
2.4 Sequence and Estimated Dates of Construction Activities 6
2.5 Allowable Non-Stormwater Discharges 7
2.6 Site Maps 7
SECTION 3: DOCUMENTATION OF COMPLIANCE WITH OTHER FEDERAL REQUIREMENTS 8
3.1 Endangered Species Protection 8
3.2 Historic Preservation 10
3.3 Safe Drinking Water Act Underground Injection Control Requirements 11
SECTION 4: EROSION AND SEDIMENT CONTROLS 12
4.1 Natural Buffers or Equivalent Sediment Controls 12
4.2 Perimeter Controls 14
4.3 Sediment Track-Out 15
4.4 Stockpiled Sediment or Soil 15
4.5 Minimize Dust 16
4.6 Minimize the Disturbance of Steep Slopes 16
4.7 Topsoil 17
4.8 Soil Compaction 17
4.9 Storm Drain Inlets 17
4.10 Constructed Stormwater Conveyance Channels 18
4.11 Sediment Basins 18
4.12 Chemical Treatment 19
4.13 Dewatering Practices 20
4.14 Other Stormwater Controls 20
4.15 Site Stabilization 21
SECTION 5: POLLUTION PREVENTION STANDARDS 23
5.1 Potential Sources of Pollution 23
5.2 Spill Prevention and Response 24
5.3 Fueling and Maintenance of Equipment or Vehicles 24
5.4 Washing of Equipment and Vehicles 24
5.5 Storage, Handling, and Disposal of Construction Products, Materials, and Wastes 25
5.6 Washing of Applicators and Containers used for Paint, Concrete or Other Materials 27
5.7 Fertilizers 27
5.8 Other Pollution Prevention Practices 28
SECTION 6: INSPECTION AND CORRECTIVE ACTION 28
6.1 Inspection Personnel and Procedures 28
6.2 Corrective Action 29
6.3 Delegation of Authority 29
SECTION 7: TRAINING 30
SECTION 8: CERTIFICATION AND NOTIFICATION 30
SWPPP ATTACHMENTSS 31

SECTION 1: CONTACT INFORMATION/RESPONSIBLE PARTIES

1.1 Owner / Operator(s) / Subcontractor(s)

Owner :

Insert Company or Organization Name:
Insert Name:
Insert Address:
Insert City, State, Zip Code:
Insert Telephone Number:
Insert Fax/Email:
Insert area of control (if more than one operator at site):

[Repeat as necessary.]

Operator(s):

Insert Company or Organization Name:
Insert Name:
Insert Address:
Insert City, State, Zip Code:
Insert Telephone Number:
Insert Fax/Email:
Insert area of control (if more than one operator at site):

[Repeat as necessary.]

Subcontractor(s):

Insert Company or Organization Name:
Insert Name:
Insert Address:
Insert City, State, Zip Code:
Insert Telephone Number:
Insert Fax/Email:
Insert area of control (if more than one operator at site):

[Repeat as necessary.]

Emergency 24-Hour Contact:

Insert Company or Organization Name:
Insert Name:
Insert Telephone Number:

1.2 Development Stormwater Team

Insert Role or Responsibility:
Insert Position:
Insert Name:
Insert Telephone Number:
Insert Email:

Insert Role or Responsibility:
Insert Position:
Insert Name:
Insert Telephone Number:
Insert Email:

Insert Role or Responsibility:
Insert Position:
Insert Name:
Insert Telephone Number:
Insert Email:

[Repeat as necessary.]

SECTION 2: SITE EVALUATION, ASSESSMENT, AND PLANNING

2.1 Project/Site Information

Project Name and Address

Project/Site Name: INSERT TEXT HERE
Project Street/Location: INSERT TEXT HERE
City: INSERT TEXT HERE
State: INSERT TEXT HERE
ZIP Code: INSERT TEXT HERE
County or Similar Subdivision: INSERT TEXT HERE

Project Latitude/Longitude

(Use **one** of three possible formats, and specify method)

Latitude:	Longitude:
1. _ _ ° _ _ ' _ _ " N (degrees, minutes, seconds)	1. _ _ ° _ _ ' _ _ " W (degrees, minutes, seconds)
2. _ _ ° _ _ . _ _ ' N (degrees, minutes, decimal)	2. _ _ ° _ _ . _ _ ' W (degrees, minutes, decimal)
3. _ _ . _ _ _ _ ° N (decimal)	3. _ _ . _ _ _ _ ° W (decimal)

Method for determining latitude/longitude:
☐ USGS topographic map (specify scale: _____) ☐ EPA Web site ☐ GPS
☐ Other (please specify): _____

Horizontal Reference Datum:
☐ NAD 27 ☐ NAD 83 or WGS 84 ☐ Unknown

If you used a U.S.G.S topographic map, what was the scale? _____

Additional Project Information

Is the project/site located on Indian country lands, or located on a property of religious or cultural significance to an Indian tribe? ☐ Yes ☐ No

Contact the MO State Historic and Preservation Office, (573-751-7858), or http://www.dnr.mo.gov/shpo/index.html. If Yes, provide the name of the Indian tribe associated with the area of Indian country (including the name of Indian reservation if applicable), or if not in Indian country, provide the name of the Indian tribe associated with the property: INSERT TEXT HERE

If you are conducting earth-disturbing activities in response to a public emergency, document the cause of the public emergency *(e.g., natural disaster, extreme flooding conditions)*, information substantiating its occurrence *(e.g., state disaster declaration)*, and a description of the construction necessary to reestablish effective public services: INSERT TEXT HERE

2.2 ***Discharge Information***

Does your project/site discharge stormwater into a Municipal Separate Storm Sewer System (MS4)? ☐ Yes ☐ No

Are there any surface waters that are located within 50 feet of your construction disturbances?
☐ Yes ☐ No

Table 1 – Names of Receiving Waters

Name(s) of the first surface water that receives stormwater directly from your site and/or from the MS4 (note: multiple rows provided where your site has more than one point of discharge that flows to different surface waters)
1.
2.
3.
4.
5.
6.
[Include additional rows as necessary.]

Table 2 – Impaired Waters / TMDLs (Answer the following for each surface water listed in Table 1 above)

	Is this surface water listed as "impaired"?	If you answered yes, then answer the following:			
		What pollutant(s) are causing the impairment?	Has a TMDL been completed?	Title of the TMDL document	Pollutant(s) for which there is a TMDL
1.	☐ YES ☐ NO		☐ YES ☐ NO		
2.	☐ YES ☐ NO		☐ YES ☐ NO		
3.	☐ YES ☐ NO		☐ YES ☐ NO		
4.	☐ YES ☐ NO		☐ YES ☐ NO		
5.	☐ YES ☐ NO		☐ YES ☐ NO		
6.	☐ YES ☐ NO		☐ YES ☐ NO		

[Include additional rows as necessary.]

Describe the method(s) you used to determine whether or not your project/site discharges to an impaired water: INSERT TEXT HERE

Table 3 – Tier 2, 2.5, or 3 Waters (Answer the following for each surface water listed in Table 1 above)

	Is this surface water designated as a Tier 2, Tier 2.5, or Tier 3 water? (see Appendix F)	If you answered yes, specify which Tier (2, 2.5, or 3) the surface water is designated as?
1.	☐ YES ☐ NO	INSERT "Tier 2", "Tier 2.5", or "Tier 3"
2.	☐ YES ☐ NO	INSERT "Tier 2", "Tier 2.5", or "Tier 3"
3.	☐ YES ☐ NO	INSERT "Tier 2", "Tier 2.5", or "Tier 3"
4.	☐ YES ☐ NO	INSERT "Tier 2", "Tier 2.5", or "Tier 3"
5.	☐ YES ☐ NO	INSERT "Tier 2", "Tier 2.5", or "Tier 3"

Note: See EPA CGP Appendix F for listing of waters designated as Tier 2, 2.5, or 3.

2.3 Nature of the Construction Activity

General Description of Project

Provide a general description of the construction project:

INSERT TEXT HERE

Size of Construction Project

What is the size of the property (in acres), the total area expected to be disturbed by the construction activities (in acres), and the maximum area expected to be disturbed at any one time?

INSERT SIZE OF PROPERTY (in acres)

INSERT TOTAL AREA OF CONSTRUCTION DISTURBANCES (in acres)

INSERT MAXIMUM AREA TO BE DISTURBED AT ANY ONE TIME (in acres)

[Repeat as necessary for individual project phases.]

Construction Support Activities (only provide if applicable)

Describe any construction support activities for the project (e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, borrow areas)

INSERT DESCRIPTION OF CONSTRUCTION SUPPORT ACTIVITY

INSERT CONTACT INFORMATION FOR CONSTRUCTION SUPPORT ACTIVITY (Name, Telephone No., Email Address)

INSERT LOCATION INFORMATION FOR CONSTRUCTION SUPPORT ACTIVITY (Address and/or Latitude/Longitude)

[Repeat as necessary.]

2.4 Sequence and Estimated Dates of Construction Activities

Phase I

INSERT GENERAL DESCRIPTION OF PHASE

- INSERT ESTIMATED START AND END DATES OF CONSTRUCTION DISTURBANCES ASSOCIATED WITH THIS PHASE
- FOR EACH STORMWATER CONTROL, INSERT ESTIMATED DATE(s) OF INSTALLATION OF EACH STORMWATER CONTROL
- FOR AREAS OF THE SITE REQUIRED TO BE STABILIZED, INSERT ESTIMATED DATE(s) OF APPLICATION OF STABILIZATION MEASURES
- INSERT ESTIMATED DATE(s) WHEN STORMWATER CONTROLS WILL BE REMOVED

Phase II

INSERT GENERAL DESCRIPTION OF PHASE

- INSERT ESTIMATED START AND END DATES OF CONSTRUCTION DISTURBANCES ASSOCIATED WITH THIS PHASE
- FOR EACH STORMWATER CONTROL, INSERT ESTIMATED DATE(s) OF INSTALLATION OF EACH STORMWATER CONTROL
- FOR AREAS OF THE SITE REQUIRED TO BE STABILIZED, INSERT ESTIMATED DATE(s) OF APPLICATION OF STABILIZATION MEASURES
- INSERT ESTIMATED DATE(s) WHEN STORMWATER CONTROLS WILL BE REMOVED

[Repeat as needed.]

2.5 *Allowable Non-Stormwater Discharges*

List of Allowable Non-Stormwater Discharges Present at the Site

Type of Allowable Non-Stormwater Discharge	**Likely to be Present at Your Site?**
Discharges from emergency fire-fighting activities	☐ YES ☐ NO
Fire hydrant flushings	☐ YES ☐ NO
Landscape irrigation	☐ YES ☐ NO
Waters used to wash vehicles and equipment	☐ YES ☐ NO
Water used to control dust	☐ YES ☐ NO
Potable water including uncontaminated water line flushings	☐ YES ☐ NO
Routine external building wash down	☐ YES ☐ NO
Pavement wash waters	☐ YES ☐ NO
Uncontaminated air conditioning or compressor condensate	☐ YES ☐ NO
Uncontaminated, non-turbid discharges of ground water or spring water	☐ YES ☐ NO
Foundation or footing drains	☐ YES ☐ NO
Construction dewatering water	☐ YES ☐ NO

(Note: You are reminded of the requirement to identify the likely locations of these allowable non-stormwater discharges on your site map. See Section 2.6, below, of the SWPPP Template.)

2.6 *Site Maps*

Attach site maps as Attachment A of this Template. For most projects, a series of site maps is necessary and recommended. The first should show the undeveloped site and its current features. An additional map or maps should be created to show the developed site or, for more complicated sites, show the major phases of development.

SECTION 3: DOCUMENTATION OF COMPLIANCE WITH OTHER FEDERAL REQUIREMENTS

3.1 Endangered Species Protection

Eligibility Criterion

Under which criterion listed in Appendix D of EPA CGP are you eligible for coverage under this permit?

☐ A ☐ B ☐ C ☐ D ☐ E

For reference purposes, the eligibility criteria listed in Appendix D are as follows:

Criterion A.	No federally-listed threatened or endangered species or their designated critical habitat(s) are likely to occur in your site's "action area" as defined in Appendix A of this permit.
Criterion B.	The construction site's discharges and discharge-related activities were already addressed in another operator's valid certification of eligibility for your action area under eligibility Criterion A, C, D, E, or F and there is no reason to believe that federally-listed species or federally-designated critical habitat not considered in the prior certification may be present or located in the "action area". To certify your eligibility under this Criterion, there must be no lapse of NPDES permit coverage in the other operator's certification. By certifying eligibility under this Criterion, you agree to comply with any effluent limitations or conditions upon which the other operator's certification was based. You must include in your NOI the tracking number from the other operator's notification of authorization under this permit. If your certification is based on another operator's certification under Criterion C, you must provide EPA with the relevant supporting information required of existing dischargers in Criterion C in your NOI form.
Criterion C.	Federally-listed threatened or endangered species or their designated critical habitat(s) are likely to occur in or near your site's "action area," and your site's discharges and discharge-related activities are not likely to adversely affect listed threatened or endangered species or critical habitat. This determination may include consideration of any stormwater controls and/or management practices you will adopt to ensure that your discharges and discharge-related activities are not likely to adversely affect listed species and critical habitat. To make this certification, you must include the following in your NOI: 1) any federally listed species and/or designated habitat located in your "action area"; and 2) the distance between your site and the listed species or designated critical habitat (in miles). You must also include a copy of your site map with your NOI.
Criterion D.	Coordination between you and the Services has been concluded. The coordination must have addressed the effects of your site's discharges and discharge-related activities on federally-listed threatened or endangered species and federally-designated critical habitat, and must have resulted in a written concurrence from the relevant Service(s) that your site's discharges and discharge-related activities are not likely to adversely affect listed species or critical habitat. You must include copies of the correspondence between yourself and the Services in your SWPPP and your NOI.

Criterion E.	Consultation between a Federal Agency and the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service under section 7 of the ESA has been concluded. The consultation must have addressed the effects of the construction site's discharges and discharge-related activities on federally-listed threatened or endangered species and federally-designated critical habitat. The result of this consultation must be either:
	i. a biological opinion that concludes that the action in question (taking into account the effects of your site's discharges and discharge-related activities) is not likely to jeopardize the continued existence of listed species, nor the destruction or adverse modification of critical habitat; or
	ii. written concurrence from the applicable Service(s) with a finding that the site's discharges and discharge-related activities are not likely to adversely affect federally-listed species or federally-designated habitat. You must include copies of the correspondence between yourself and the Services in your SWPPP and your NOI.
Criterion F.	Your construction activities are authorized through the issuance of a permit under section 10 of the ESA, and this authorization addresses the effects of the site's discharges and discharge-related activities on federally-listed species and federally-designated critical habitat. You must include copies of the correspondence between yourself and the Services in your SWPPP and your NOI.

Supporting Documentation

Provide documentation for the applicable eligibility criterion you select in Appendix D of EPA CGP, as follows:

For criterion A, indicate the basis for your determination that no federally-listed threatened or endangered species or their designated critical habitat(s) are likely to occur in your site's action area (as defined in Appendix A of the permit). Check the applicable source of information you relied upon:

- ☐ Specific communication with staff of the U.S. Fish & Wildlife Service or National Marine Fisheries Service. INSERT DATE OF COMMUNICATION AND WHO YOU SPOKE WITH
- ☐ Publicly available species list. INSERT SPECIFIC DOCUMENT AND/OR WEBSITE RELIED UPON
- ☐ Other source: INSERT SPECIFIC SOURCE

For criterion B, provide the Tracking Number from the other operator's notification of permit authorization: INSERT AUTHORIZATION TRACKING NUMBER FROM OTHER OPERATOR'S NOTIFICATION LETTER/EMAIL

Provide a brief summary of the basis used by the other operator for selecting criterion A, B, C, D, E, or F: INSERT TEXT HERE

For criterion C, provide the following information:

- INSERT LIST OF FEDERALLY-LISTED SPECIES OR FEDERALLY-DESIGNATED CRITICAL HABITAT LOCATED IN YOUR ACTION AREA
- INSERT DISTANCE BETWEEN YOUR SITE AND THE LISTED SPECIES OR CRITICAL HABITAT (in miles)

Also, provide a brief summary of the basis used for determining that your site's discharges and discharge-related activities are not likely to adversely affect listed species or critical habitat:

INSERT TEXT HERE

For criterion D, E, or F, attach copies of any letters or other communication between you and the U.S. Fish & Wildlife Service or National Marine Fisheries Service concluding consultation or coordination activities. INSERT COPIES OF LETTERS OR OTHER COMMUNICATIONS HERE

3.2 *Historic Preservation*

Appendix E, Step 1

Do you plan on installing any of the following stormwater controls at your site? Check all that apply below, and proceed to Appendix E of EPA CGP, Step 2.

- ☐ Dike
- ☐ Berm
- ☐ Catch Basin
- ☐ Pond
- ☐ Stormwater Conveyance Channel (e.g., ditch, trench, perimeter drain, swale, etc.)
- ☐ Culvert
- ☐ Other type of ground-disturbing stormwater control: INSERT SPECIFIC TYPE OF STORMWATER CONTROL

(Note: If you will not be installing any ground-disturbing stormwater controls, no further documentation is required for Section 3.2 of the Template.)

Appendix E, Step 2

If you answered yes in Step 1, have prior surveys or evaluations conducted on the site already determined that historic properties do not exist, or that prior disturbances at the site have precluded the existence of historic properties? ☐ YES ☐ NO

- If yes, no further documentation is required for Section 3.2 of the Template.
- If no, proceed to Appendix E of the EPA CGP, Step 3.

Appendix E, Step 3

If you answered no in Step 2, have you determined that your installation of subsurface earth-disturbing stormwater controls will have no effect on historic properties? ☐ YES ☐ NO

If yes, provide documentation of the basis for your determination. INSERT REFERENCES TO DOCUMENTS, STUDIES, OR OTHER SOURCES RELIED UPON

If no, proceed to Appendix E of the EPA CGP, Step 4.

Appendix E, Step 4

If you answered no in Step 3, did the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Office (THPO), or other tribal representative (whichever applies) respond to you

within 15 calendar days to indicate whether the subsurface earth disturbances caused by the installation of stormwater controls affect historic properties? ☐ YES ☐ NO

If no, no further documentation is required for Section 3.2 of the Template.

If yes, describe the nature of their response:

☐ Written indication that adverse effects to historic properties from the installation of stormwater controls can be mitigated by agreed upon actions. INSERT COPIES OF LETTERS, EMAILS, OR OTHER COMMUNICATION BETWEEN YOU AND THE APPLICABLE SHPO, THPO, OR OTHER TRIBAL REPRESENTATIVE

☐ No agreement has been reached regarding measures to mitigate effects to historic properties from the installation of stormwater controls. INSERT COPIES OF LETTERS, EMAILS, OR OTHER COMMUNICATION BETWEEN YOU AND THE APPLICABLE SHPO, THPO, OR OTHER TRIBAL REPRESENTATIVE

☐ Other: INSERT COPIES OF LETTERS, EMAILS, OR OTHER COMMUNICATION BETWEEN YOU AND THE APPLICABLE SHPO, THPO, OR OTHER TRIBAL REPRESENTATIVE

3.3 *Safe Drinking Water Act Underground Injection Control Requirements*

Do you plan to install any of the following controls? Check all that apply below.

☐ Infiltration trenches (if stormwater is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system)

☐ Commercially manufactured pre-cast or pre-built proprietary subsurface detention vaults, chambers, or other devices designed to capture and infiltrate stormwater flow

☐ Drywells, seepage pits, or improved sinkholes (if stormwater is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system)

If yes, INSERT COPIES OF LETTERS, EMAILS, OR OTHER COMMUNICATION BETWEEN YOU AND THE STATE AGENCY OR EPA REGIONAL OFFICE

For information on Safe Drinking Water Act UIC Requirements contact: Mo DNR Division of Geology and Land Survey , 573-368-2100 or 800-361-4827.

SECTION 4: EROSION AND SEDIMENT CONTROLS

4.1 Natural Buffers or Equivalent Sediment Controls

Buffer Compliance Alternatives

Are there any surface waters within 50 feet of your project's earth disturbances? ☐ YES ☐ NO

(Note: If no, no further documentation is required for the SWPPP Template.)

Check the compliance alternative that you have chosen:

☐ I will provide and maintain a 50-foot undisturbed natural buffer.

(Note (1): You must show the 50-foot boundary line of the natural buffer on your site map.)

(Note (2): You must show on your site map how all discharges from your construction disturbances through the natural buffer area will first be treated by the site's erosion and sediment controls. Also, show on the site map any velocity dissipation devices used to prevent erosion within the natural buffer area.)

☐ I will provide and maintain an undisturbed natural buffer that is less than 50 feet and is supplemented by additional erosion and sediment controls, which in combination achieves the sediment load reduction equivalent to a 50-foot undisturbed natural buffer.

(Note (1): You must show the boundary line of the natural buffer on your site map.)

(Note (2): You must show on your site map how all discharges from your construction disturbances through the natural buffer area will first be treated by the site's erosion and sediment controls. Also, show on the site map any velocity dissipation devices used to prevent erosion within the natural buffer area.)

- INSERT WIDTH OF NATURAL BUFFER TO BE RETAINED
- INSERT EITHER ONE OF THE FOLLOWING:

  (1) THE ESTIMATED SEDIMENT REMOVAL FROM A 50-FOOT BUFFER USING APPLICABLE TABLES IN APP. G, ATTACHMENT 1. INCLUDE INFORMATION ABOUT THE BUFFER VEGETATION AND SOIL TYPE THAT PREDOMINATE AT YOUR SITE

  OR

  (2) IF YOU CONDUCTED A SITE-SPECIFIC CALCULATION FOR THE ESTIMATED SEDIMENT REMOVAL OF A 50-FOOT BUFFER, PROVIDE THE SPECIFIC REMOVAL EFFICIENCY, AND INFORMATION YOU RELIED UPON TO MAKE YOUR SITE-SPECIFIC CALCULATION.
- INSERT DESCRIPTION OF ADDITIONAL EROSION AND SEDIMENT CONTROLS TO BE USED IN COMBINATION WITH NATURAL BUFFER AREA
- INSERT THE FOLLOWING INFORMATION:
  - (1) SPECIFY THE MODEL OR OTHER TOOL USED TO ESTIMATE SEDIMENT LOAD REDUCTIONS FROM THE COMBINATION OF THE BUFFER AREA AND ADDITIONAL EROSION AND SEDIMENT CONTROLS INSTALLED AT YOUR SITE, AND
  - (2) INCLUDE THE RESULTS OF CALCULATIONS SHOWING THAT THE COMBINATION OF YOUR BUFFER AREA AND THE ADDITIONAL EROSION AND SEDIMENT CONTROLS INSTALLED AT YOUR SITE WILL MEET OR EXCEED THE SEDIMENT REMOVAL EFFICIENCY OF A 50-FOOT BUFFER

☐ It is infeasible to provide and maintain an undisturbed natural buffer of any size, therefore I will implement erosion and sediment controls that achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer.

- INSERT RATIONALE FOR CONCLUDING THAT IT IS INFEASIBLE TO PROVIDE AND MAINTAIN A NATURAL BUFFER OF ANY SIZE
- INSERT EITHER ONE OF THE FOLLOWING:

  (1) THE ESTIMATED SEDIMENT REMOVAL FROM A 50-FOOT BUFFER USING APPLICABLE TABLES IN APP. G, ATTACHMENT 1. INCLUDE INFORMATION ABOUT THE BUFFER VEGETATION AND SOIL TYPE THAT PREDOMINATE AT YOUR SITE

  OR

  (2) IF YOU CONDUCTED A SITE-SPECIFIC CALCULATION FOR THE ESTIMATED SEDIMENT REMOVAL OF A 50-FOOT BUFFER, PROVIDE THE SPECIFIC REMOVAL EFFICIENCY, AND INFORMATION YOU RELIED UPON TO MAKE YOUR SITE-SPECIFIC CALCULATION.
- INSERT DESCRIPTION OF ADDITIONAL EROSION AND SEDIMENT CONTROLS TO BE USED IN COMBINATION WITH NATURAL BUFFER AREA
- INSERT THE FOLLOWING INFORMATION:
  - (1) SPECIFY THE MODEL OR OTHER TOOL USED TO ESTIMATE SEDIMENT LOAD REDUCTIONS FROM THE EROSION AND SEDIMENT CONTROLS INSTALLED AT YOUR SITE, AND
  - (2) INCLUDE THE RESULTS OF CALCULATIONS SHOWING THAT THE ADDITIONAL EROSION AND SEDIMENT CONTROLS INSTALLED AT YOUR SITE WILL MEET OR EXCEED THE SEDIMENT REMOVAL EFFICIENCY OF A 50-FOOT BUFFER

☐ I qualify for one of the exceptions in Part 2.1.2.1.e. (If you have checked this box, provide information on the applicable buffer exception that applies, below.)

Buffer Exceptions

Which of the following exceptions to the buffer requirements applies to your site?

☐ There is no discharge of stormwater to the surface water that is located 50 feet from my construction disturbances.

(Note: If this exception applies, no further documentation is required for Section 4.1 of the Template.)

☐ No natural buffer exists due to preexisting development disturbances that occurred prior to the initiation of planning for this project.

(Note (1): If this exception applies, no further documentation is required for Section 4.1 of the Template.)

(Note (2): Where some natural buffer exists but portions of the area within 50 feet of the surface water are occupied by preexisting development disturbances, you must still comply with the one of the CGP Part 2.1.2.1.a compliance alternatives.)

☐ For a "linear project" (defined in Appendix A), site constraints (e.g., limited right-of-way) make it infeasible for me to meet any of the CGP Part 2.1.2.1.a compliance alternatives. INCLUDE DOCUMENTATION HERE OF THE FOLLOWING: (1) WHY IT IS INFEASIBLE FOR YOU TO MEET ONE OF THE BUFFER COMPLIANCE ALTERNATIVES, AND (2) BUFFER WIDTH RETAINED AND/OR

SUPPLEMENTAL EROSION AND SEDIMENT CONTROLS TO TREAT DISCHARGES TO THE SURFACE WATER

☐ The project qualifies as "small residential lot" construction (defined in Part 2.1.2.1.e.iv and in Appendix A).

For Alternative 1 (see Appendix G, Part G.2.3.2.a):

- INSERT WIDTH OF NATURAL BUFFER TO BE RETAINED
- INSERT APPLICABLE REQUIREMENTS BASED ON TABLE G-1
- INSERT DESCRIPTION OF HOW YOU WILL COMPLY WITH THESE REQUIREMENTS

For Alternative 2 (see Appendix G, Part G.2.3.2.b):

- INSERT (1) THE ASSIGNED RISK LEVEL BASED ON APPLICABLE TABLE IN APP. G, PART G.2.3.2.b, AND (2) THE PREDOMINANT SOIL TYPE AND AVERAGE SLOPE AT YOUR SITE
- INSERT APPLICABLE REQUIREMENTS BASED ON APP. G, TABLE G-7
- INSERT DESCRIPTION OF HOW YOU WILL COMPLY WITH THESE REQUIREMENTS

☐ Buffer disturbances are authorized under a CWA Section 404 permit. INSERT DESCRIPTION OF ANY EARTH DISTURBANCES THAT WILL OCCUR WITHIN THE BUFFER AREA

(Note (1): If this exception applies, no further documentation is required for Section 4.1 of the Template.)

(Note (2): This exception only applies to the limits of disturbance authorized under the Section 404 permit, and does not apply to any upland portion of the construction project.)

☐ Buffer disturbances will occur for the construction of a water-dependent structure or water access area (e.g., pier, boat ramp, and trail). INSERT DESCRIPTION OF ANY EARTH DISTURBANCES THAT WILL OCCUR WITHIN THE BUFFER AREA

(Note (1): If this exception applies, no further documentation is required for Section 4.1 of the Template.)

4.2 Perimeter Controls

General

- INSERT GENERAL DESCRIPTION OF HOW YOU WILL COMPLY WITH CGP PART 2.1.2.2.a

Specific Perimeter Controls

Perimeter Control # 1

Perimeter Control Description

- INSERT DESCRIPTION OF PERIMETER CONTROL TO BE INSTALLED. INDICATE SPECIFIC CONTROLS THAT WILL BE INSTALLED AND MADE OPERATIONAL PRIOR TO EARTH DISTURBANCE
- INCLUDE COPIES OF DESIGN SPECIFICATIONS

Installation

- INSERT APPROXIMATE DATE OF INSTALLATION AND INSTALLATION INSTRUICTIONS

Maintenance Requirements

- INSERT MAINTENANCE REQUIREMENTS FOR THE PERIMETER CONTROL. AT A MINIMUM, CGP PART 2.1.2.2.b REQUIRES REMOVAL OF SEDIMENT "before it has accumulated to one-half of the above-ground height of any perimeter control."

[Repeat as needed for individual perimeter controls.]

4.3 Sediment Track-Out

General

- INSERT GENERAL DESCRIPTION OF HOW YOU WILL COMPLY WITH CGP PART 2.1.2.3

Specific Track-Out Controls

Track-Out Control # 1

Track-Out Control Description

- INSERT DESCRIPTION OF TRACK-OUT CONTROL TO BE INSTALLED
- INCLUDE COPIES OF DESIGN SPECIFICATIONS HERE

Installation

- INSERT APPROXIMATE DATE OF INSTALLATION

Maintenance Requirements

- INSERT MAINTENANCE REQUIREMENTS FOR THE TRACK-OUT CONTROL.

  (Note: At a minimum, you must provide for maintenance that meets the following requirement in CGP Part 2.1.2.3.d: "Where sediment has been tracked-out from your site onto the surface of off-site streets, other paved areas, and sidewalks, you must remove the deposited sediment by the end of the same work day in which the track-out occurs or by the end of the next work day if track-out occurs on a non-work day. You must remove the track-out by sweeping, shoveling, or vacuuming these surfaces, or by using other similarly effective means of sediment removal. You are prohibited from hosing or sweeping tracked-out sediment into any stormwater conveyance (unless it is connected to a sediment basin, sediment trap, or similarly effective control), storm drain inlet, or surface water.")

[Repeat as needed for individual track-out controls.]

4.4 Stockpiled Sediment or Soil

General

- INSERT GENERAL DESCRIPTION OF HOW YOU WILL COMPLY WITH CGP PART 2.1.2.4

Specific Stockpile Controls

Stockpile Control # 1

Stockpiled Sediment/Soil Control Description

- INSERT DESCRIPTION OF STOCKPILE CONTROL TO BE INSTALLED
- INCLUDE COPIES OF DESIGN SPECIFICATIONS HERE

Installation

- INSERT APPROXIMATE DATE OF INSTALLATION

Maintenance Requirements

- INSERT MAINTENANCE REQUIREMENTS FOR THE STOCKPILE CONTROL.
  (Note: At a minimum, you must comply with following requirement in CGP Part 2.1.2.4.d: Do not hose down or sweep soil or sediment accumulated on pavement or other impervious surfaces into any stormwater conveyance (unless connected to a sediment basin, sediment trap, or similarly effective control), storm drain inlet, or surface water.)

[Repeat as needed for individual stockpile controls.]

4.5 Minimize Dust

General

- INSERT GENERAL DESCRIPTION OF HOW YOU WILL COMPLY WITH CGP PART 2.1.2.5

Specific Dust Controls

Dust Control # 1

Dust Control Description

- INSERT DESCRIPTION OF DUST CONTROL TO BE INSTALLED
- INCLUDE COPIES OF DESIGN SPECIFICATIONS HERE

Installation

- INSERT APPROXIMATE DATE OF INSTALLATION

Maintenance Requirements

- INSERT MAINTENANCE REQUIREMENTS FOR THE DUST CONTROL

[Repeat as needed for individual dust controls.]

4.6 Minimize the Disturbance of Steep Slopes

General

- INSERT GENERAL DESCRIPTION OF HOW YOU WILL COMPLY WITH CGP PART 2.1.2.6

Specific Steep Slope Controls

Steep Slope Control # 1

Steep Slope Control Description

- INSERT DESCRIPTION OF STEEP SLOPE CONTROL TO BE INSTALLED
- INCLUDE COPIES OF DESIGN SPECIFICATIONS HERE

Installation

- INSERT APPROXIMATE DATE OF INSTALLATION

Maintenance Requirements

- INSERT MAINTENANCE REQUIREMENTS FOR THE STEEP SLOPE CONTROL

[Repeat as needed for individual steep slope controls.]

4.7 Topsoil

General

- INSERT GENERAL DESCRIPTION OF HOW YOU WILL COMPLY WITH CGP PART 2.1.2.7. IF IT IS INFEASIBLE FOR YOU TO COMPLY WITH THE REQUIREMENT, INCLUDE AN EXPLANATION OF WHY THIS IS THE CASE.

Specific Topsoil Controls

Topsoil Control # 1

Topsoil Control Description

- INSERT DESCRIPTION OF TOPSOIL CONTROL TO BE INSTALLED
- INCLUDE COPIES OF DESIGN SPECIFICATIONS HERE

Installation

- INSERT APPROXIMATE DATE OF INSTALLATION

Maintenance Requirements

- INSERT MAINTENANCE REQUIREMENTS FOR THE TOPSOIL CONTROL

[Repeat as needed for individual topsoil controls.]

4.8 Soil Compaction

General

- INSERT GENERAL DESCRIPTION OF HOW YOU WILL COMPLY WITH CGP PART 2.1.2.8

Specific Soil Compaction Controls

Soil Compaction Control # 1

Soil Compaction Control Description

- INSERT DESCRIPTION OF SOIL COMPACTION CONTROL TO BE INSTALLED
- INCLUDE COPIES OF DESIGN SPECIFICATIONS HERE

Installation

- INSERT APPROXIMATE DATE OF INSTALLATION

Maintenance Requirements

- INSERT MAINTENANCE REQUIREMENTS FOR THE SOIL COMPACTION CONTROL

[Repeat as needed for individual soil compaction controls.]

4.9 Storm Drain Inlets

General

- INSERT GENERAL DESCRIPTION OF HOW YOU WILL COMPLY WITH CGP PART 2.1.2.9

Specific Storm Drain Inlet Controls

Storm Drain Inlet Control # 1
Storm Drain Inlet Control Description
- INSERT DESCRIPTION OF STORM DRAIN INLET CONTROL TO BE INSTALLED
- INCLUDE COPIES OF DESIGN SPECIFICATIONS HERE

Installation
- INSERT APPROXIMATE DATE OF INSTALLATION

Maintenance Requirements
- INSERT MAINTENANCE REQUIREMENTS FOR THE STORM DRAIN INLET CONTROL
  (Note: At a minimum, you must comply with following requirement in CGP Part 2.1.2.9.b: "Clean, or remove and replace, the protection measures as sediment accumulates, the filter becomes clogged, and/or performance is compromised. Where there is evidence of sediment accumulation adjacent to the inlet protection measure, you must remove the deposited sediment by the end of the same work day in which it is found or by the end of the following work day if removal by the same work day is not feasible.")

[Repeat as needed for individual storm drain inlet controls.]

4.10 Constructed Stormwater Conveyance Channels

General
- INSERT GENERAL DESCRIPTION OF HOW YOU WILL COMPLY WITH CGP PART 2.1.3.1

Specific Conveyance Channel Controls

Stormwater Conveyance Channel Control # 1
Stormwater Conveyance Channel Control Description
- INSERT DESCRIPTION OF STORMWATER CONVEYANCE CHANNEL CONTROL TO BE INSTALLED
- INCLUDE COPIES OF DESIGN SPECIFICATIONS HERE

Installation
- INSERT APPROXIMATE DATE OF INSTALLATION

Maintenance Requirements
- INSERT MAINTENANCE REQUIREMENTS FOR THE STORMWATER CONVEYANCE CHANNEL CONTROL

[Repeat as needed for individual stormwater conveyance channel controls.]

4.11 Sediment Basins

General
- INSERT GENERAL DESCRIPTION OF HOW YOU WILL COMPLY WITH CGP PART 2.1.3.2. IF YOU HAVE DETERMINED THAT IT IS INFEASIBLE FOR YOU TO UTILIZE AN OUTLET STRUCTURE THAT DISCHARGES FROM THE SURFACE, PROVIDE AN EXPLANATION FOR WHY THIS IS THE CASE.

Specific Sediment Basin Controls

Sediment Basin Control # 1
Sediment Basin Control Description
- INSERT DESCRIPTION OF SEDIMENT BASIN CONTROL TO BE INSTALLED
- INCLUDE COPIES OF DESIGN SPECIFICATIONS HERE

Installation
- INSERT APPROXIMATE DATE OF INSTALLATION

Maintenance Requirements
- INSERT MAINTENANCE REQUIREMENTS FOR THE SEDIMENT BASIN CONTROL
  (Note: At a minimum, you must comply with following requirement in CGP Part 2.1.3.2.b: "Keep in effective operating condition and remove accumulated sediment to maintain at least ½ of the design capacity of the sediment basin at all times.")

[Repeat as needed for individual sediment basin controls.]

4.12 Chemical Treatment

Soil Types
List all the soil types (including soil types expected to be found in fill material) that are expected to be exposed during construction and that will be discharged to locations where chemicals will be applied: INSERT TEXT HERE

Treatment Chemicals
List all treatment chemicals that will be used at the site and explain why these chemicals are suited to the soil characteristics: INSERT TEXT HERE

Describe the dosage of all treatment chemicals you will use at the site or the methodology you will use to determine dosage: INSERT TEXT HERE

Provide information from any applicable Material Safety Data Sheets (MSDS): INSERT TEXT HERE

Describe how each of the chemicals will stored: INSERT TEXT HERE

Include references to applicable state or local requirements affecting the use of treatment chemicals, and copies of applicable manufacturer's specifications regarding the use of your specific treatment chemicals and/or chemical treatment systems: INSERT TEXT HERE

Special Controls for Cationic Treatment Chemicals (if applicable)
If you have been authorized by your applicable Regional Office to use cationic treatment chemicals, include the official EPA authorization letter or other communication, and identify the specific controls and implementation procedures you are required to implement to ensure that your use of cationic treatment chemicals will not lead to a violation of water quality standards: INSERT (1) ANY LETTERS OR OTHER DOCUMENTS SENT FROM THE EPA REGIONAL OFFICE CONCERNING YOUR USE OF CATIONIC TREATMENT CHEMICALS, AND (2) DESCRIPTION OF ANY SPECIFIC CONTROLS YOU ARE REQUIRED TO IMPLEMENT

Schematic Drawings of Stormwater Controls/Chemical Treatment Systems
Provide schematic drawings of any chemically-enhanced stormwater controls or chemical treatment systems to be used for application of treatment chemicals: INSERT TEXT HERE

Training
Describe the training that personnel who handle and apply chemicals have received prior to permit coverage, or will receive prior to the use of treatment chemicals: INSERT TEXT HERE

4.13 Dewatering Practices

General
- INSERT GENERAL DESCRIPTION OF HOW YOU WILL COMPLY WITH CGP PART 2.1.3.4

Specific Dewatering Practices

Dewatering Practice # 1
Dewatering Practice Description
- INSERT DESCRIPTION OF DEWATERING PRACTICE TO BE INSTALLED
- INCLUDE COPIES OF DESIGN SPECIFICATIONS HERE

Installation
- INSERT APPROXIMATE DATE OF INSTALLATION

Maintenance Requirements
- INSERT MAINTENANCE REQUIREMENTS FOR THE DEWATERING PRACTICE
  (Note: At a minimum, you must comply with following requirement in CGP Part 2.1.3.4: "With backwash water, either haul it away for disposal or return it to the beginning of the treatment process; and replace and clean the filter media used in dewatering devices when the pressure differential equals or exceeds the manufacturer's specifications.")

[Repeat as needed for individual dewatering practices.]

4.14 Other Stormwater Controls

Describe any other stormwater controls that do not fit into the above categories.

General
- INSERT GENERAL DESCRIPTION OF THE PROBLEM THIS CONTROL IS DESIGNED TO ADDRESS

Specific Stormwater Control Practices

Stormwater Control Practice # 1
Description
- INSERT DESCRIPTION OF PRACTICE TO BE INSTALLED
- IF APPLICABLE INCLUDE COPIES OF DESIGN SPECIFICATIONS HERE

Installation
- INSERT APPROXIMATE DATE OF INSTALLATION

Maintenance Requirements
- INSERT MAINTENANCE REQUIREMENTS FOR THE STORMWATER CONTROL PRACTICE

[Repeat as needed.]

4.15 Site Stabilization

Site Stabilization Practice (only use this if you are not located in an arid, semi-arid, or drought-stricken area)
☐ *Vegetative* ☐ *Non-Vegetative*
☐ *Temporary* ☐ *Permanent*

Description of Practice
- INSERT DESCRIPTION OF STABILIZATION PRACTICE TO BE INSTALLED
- NOTE HOW DESIGN WILL MEET REQUIREMENTS OF PART 2.2.2.1 OR 2.2.2.2, WHICHEVER APPLIES
- INCLUDE COPIES OF DESIGN SPECIFICATIONS HERE

Installation
- INSERT APPROXIMATE DATE OF INSTALLATION
- INSERT APPROXIMATE COMPLETION DATE CONSISTENT WITH CGP PART 2.2.1.2

Maintenance Requirements
INSERT MAINTENANCE REQUIREMENTS FOR THE STABILIZATION PRACTICE

[Repeat as needed for additional stabilization practices.]

Site Stabilization Practice (only use this if you are located in an arid, semi-arid, or drought-stricken area)
☐ *Vegetative* ☐ *Non-Vegetative*
☐ *Temporary* ☐ *Permanent*

Description of Practice
- INSERT DESCRIPTION OF STABILIZATION PRACTICE TO BE INSTALLED
- NOTE HOW DESIGN WILL MEET REQUIREMENTS OF PART 2.2.2.1 OR 2.2.2.2, WHICHEVER APPLIES
- INCLUDE COPIES OF DESIGN SPECIFICATIONS HERE

Installation
- FOR VEGETATIVE STABILIZATION IN ARID OR SEMI-ARID AREAS, INDICATE THE BEGINNING AND ENDING DATES OF THE SEASONALLY DRY PERIOD AND DESCRIBE YOUR SITE CONDITIONS
- INSERT APPROXIMATE DATE OF INSTALLATION
- INSERT APPROXIMATE COMPLETION DATE CONSISTENT WITH CGP PART 2.2.1.3

Maintenance Requirements
INSERT MAINTENANCE REQUIREMENTS FOR THE STABILIZATION PRACTICE

[Repeat as needed for additional stabilization practices.]

Site Stabilization Practice (only use this if uncontrollable circumstances have delayed the initiation or completion of stabilization)

(Note: You will not be able to include this information in your initial SWPPP. If you are affected by circumstances such as those described in CGP Part 2.2.1.3.b, you will need to modify your SWPPP to include this information.)

☐ *Vegetative* ☐ *Non-Vegetative*
☐ *Temporary* ☐ *Permanent*

Justification

- INSERT DESCRIPTION OF CIRCUMSTANCES THAT PREVENT YOU FROM MEETING THE DEADLINES REQUIRED IN CGP PARTS 2.2.1.1 AND/OR 2.2.1.2 AND THE SCHEDULE YOU WILL FOLLOW FOR INITIATING AND COMPLETING STABILIZATION

Description of Practice

- INSERT DESCRIPTION OF STABILIZATION PRACTICE TO BE INSTALLED
- NOTE HOW DESIGN WILL MEET REQUIREMENTS OF PART 2.2.2.1 OR 2.2.2.2, WHICHEVER APPLIES
- INCLUDE COPIES OF DESIGN SPECIFICATIONS HERE

Installation

- INSERT DATES OF INITIATION AND COMPLETION OF NON-VEGETATIVE STABILIZATION CONTROLS (must be completed within 14 days of the cessation of construction)

Maintenance Requirements
INSERT MAINTENANCE REQUIREMENTS FOR THE STABILIZATION PRACTICE

[Repeat as needed for additional stabilization practices.]

SECTION 5: POLLUTION PREVENTION STANDARDS

5.1 Potential Sources of Pollution

Construction Site Pollutants

INSERT TEXT OR USE TABLE BELOW

Pollutant-Generating Activity	**Pollutants or Pollutant Constituents** (that could be discharged if exposed to stormwater)	**Location on Site** (or reference SWPPP site map where this is shown)

[Include additional rows as necessary.]

5.2 Spill Prevention and Response

INSERT SPILL PREVENTION AND RESPONSE PROCEDURES HERE

5.3 Fueling and Maintenance of Equipment or Vehicles

General

- INSERT GENERAL DESCRIPTION OF HOW YOU WILL COMPLY WITH THE CGP PART 2.3.3.1 REQUIREMENT TO "provide an effective means of eliminating the discharge of spilled or leaked chemicals, including fuel, from the area where these activities will take place"

Specific Pollution Prevention Practices

Pollution Prevention Practice # 1

Description

- INSERT DESCRIPTION OF PRACTICE TO BE INSTALLED
- IF APPLICABLE INCLUDE COPIES OF DESIGN SPECIFICATIONS HERE

Installation

- INSERT APPROXIMATE DATE OF INSTALLATION

Maintenance Requirements

- INSERT MAINTENANCE REQUIREMENTS FOR THE POLLUTION PREVENTION PRACTICE

[Repeat as needed.]

5.4 Washing of Equipment and Vehicles

General

- INSERT GENERAL DESCRIPTION OF HOW YOU WILL COMPLY WITH CGP PART 2.3.3.2

Specific Pollution Prevention Practices

Pollution Prevention Practice # 1

Description

- INSERT DESCRIPTION OF PRACTICE TO BE INSTALLED
- IF APPLICABLE INCLUDE COPIES OF DESIGN SPECIFICATIONS HERE

Installation

- INSERT APPROXIMATE DATE OF INSTALLATION

Maintenance Requirements

- INSERT MAINTENANCE REQUIREMENTS FOR THE POLLUTION PREVENTION PRACTICE

[Repeat as needed.]

5.5 Storage, Handling, and Disposal of Construction Products, Materials, and Wastes

5.5.1 Building Products

(Note: Examples include asphalt sealants, copper flashing, roofing materials, adhesives, concrete admixtures.)

General

- INSERT GENERAL DESCRIPTION OF HOW YOU WILL COMPLY WITH CGP PART 2.3.3.3.a

Specific Pollution Prevention Practices

Pollution Prevention Practice # 1

Description

- INSERT DESCRIPTION OF PRACTICE TO BE INSTALLED
- IF APPLICABLE INCLUDE COPIES OF DESIGN SPECIFICATIONS HERE

Installation

- INSERT APPROXIMATE DATE OF INSTALLATION

Maintenance Requirements

- INSERT MAINTENANCE REQUIREMENTS FOR THE POLLUTION PREVENTION PRACTICE

[Repeat as needed.]

5.5.2 Pesticides, Herbicides, Insecticides, Fertilizers, and Landscape Materials

General

- INSERT GENERAL DESCRIPTION OF HOW YOU WILL COMPLY WITH CGP PART 2.3.3.3.b

Specific Pollution Prevention Practices

Pollution Prevention Practice # 1

Description

- INSERT DESCRIPTION OF PRACTICE TO BE INSTALLED
- IF APPLICABLE INCLUDE COPIES OF DESIGN SPECIFICATIONS HERE

Installation

- INSERT APPROXIMATE DATE OF INSTALLATION

Maintenance Requirements

- INSERT MAINTENANCE REQUIREMENTS FOR THE POLLUTION PREVENTION PRACTICE

[Repeat as needed.]

5.5.3 Diesel Fuel, Oil, Hydraulic Fluids, Other Petroleum Products, and Other Chemicals

General

- INSERT GENERAL DESCRIPTION OF HOW YOU WILL COMPLY WITH CGP PART 2.3.3.3.c

Specific Pollution Prevention Practices

Pollution Prevention Practice # 1

Description
- INSERT DESCRIPTION OF PRACTICE TO BE INSTALLED
- IF APPLICABLE INCLUDE COPIES OF DESIGN SPECIFICATIONS HERE

Installation
- INSERT APPROXIMATE DATE OF INSTALLATION

Maintenance Requirements
- INSERT MAINTENANCE REQUIREMENTS FOR THE POLLUTION PREVENTION PRACTICE

[Repeat as needed.]

5.5.4 Hazardous or Toxic Waste

(Note: Examples include paints, solvents, petroleum-based products, wood preservatives, additives, curing compounds, acids.)

General
- INSERT GENERAL DESCRIPTION OF HOW YOU WILL COMPLY WITH CGP PART 2.3.3.3.d

Specific Pollution Prevention Practices

Pollution Prevention Practice # 1
Description
- INSERT DESCRIPTION OF PRACTICE TO BE INSTALLED
- IF APPLICABLE INCLUDE COPIES OF DESIGN SPECIFICATIONS HERE

Installation
- INSERT APPROXIMATE DATE OF INSTALLATION

Maintenance Requirements
- INSERT MAINTENANCE REQUIREMENTS FOR THE POLLUTION PREVENTION PRACTICE

[Repeat as needed.]

5.5.5 Construction and Domestic Waste

(Note: Examples include packaging materials, scrap construction materials, masonry products, timber, pipe and electrical cuttings, plastics, styrofoam, concrete, and other trash or building materials.)

General
- INSERT GENERAL DESCRIPTION OF HOW YOU WILL COMPLY WITH CGP PART 2.3.3.3.e

Specific Pollution Prevention Practices

Pollution Prevention Practice # 1
Description
- INSERT DESCRIPTION OF PRACTICE TO BE INSTALLED
- IF APPLICABLE INCLUDE COPIES OF DESIGN SPECIFICATIONS HERE

Installation
- INSERT APPROXIMATE DATE OF INSTALLATION

Maintenance Requirements
- INSERT MAINTENANCE REQUIREMENTS FOR THE POLLUTION PREVENTION PRACTICE

[Repeat as needed.]

5.5.6 Sanitary Waste

General
- INSERT GENERAL DESCRIPTION OF HOW YOU WILL COMPLY WITH CGP PART 2.3.3.3.f

Specific Pollution Prevention Practices

Pollution Prevention Practice # 1
Description
- INSERT DESCRIPTION OF PRACTICE TO BE INSTALLED
- IF APPLICABLE INCLUDE COPIES OF DESIGN SPECIFICATIONS HERE

Installation
- INSERT APPROXIMATE DATE OF INSTALLATION

Maintenance Requirements
- INSERT MAINTENANCE REQUIREMENTS FOR THE POLLUTION PREVENTION PRACTICE

[Repeat as needed.]

5.6 Washing of Applicators and Containers used for Paint, Concrete or Other Materials

General
- INSERT GENERAL DESCRIPTION OF HOW YOU WILL COMPLY WITH CGP PART 2.3.3.4

Specific Pollution Prevention Practices

Pollution Prevention Practice # 1
Description
- INSERT DESCRIPTION OF PRACTICE TO BE INSTALLED
- IF APPLICABLE INCLUDE COPIES OF DESIGN SPECIFICATIONS HERE

Installation
- INSERT APPROXIMATE DATE OF INSTALLATION

Maintenance Requirements
- INSERT MAINTENANCE REQUIREMENTS FOR THE POLLUTION PREVENTION PRACTICE

[Repeat as needed.]

5.7 Fertilizers

General
- INSERT GENERAL DESCRIPTION OF HOW YOU WILL COMPLY WITH CGP PART 2.3.5

Specific Pollution Prevention Practices

Pollution Prevention Practice # 1
Description
- INSERT DESCRIPTION OF PRACTICE TO BE INSTALLED
- IF APPLICABLE INCLUDE COPIES OF DESIGN SPECIFICATIONS HERE

Installation
- INSERT APPROXIMATE DATE OF INSTALLATION

Maintenance Requirements
- INSERT MAINTENANCE REQUIREMENTS FOR THE POLLUTION PREVENTION PRACTICE

[Repeat as needed for individual fertilizer practices.]

5.8 Other Pollution Prevention Practices

General
- INSERT GENERAL DESCRIPTION OF THE PROBLEM THIS CONTROL IS DESIGNED TO ADDRESS

Specific Pollution Prevention Practices

Pollution Prevention Practice # 1
Description
- INSERT DESCRIPTION OF PRACTICE TO BE INSTALLED
- IF APPLICABLE INCLUDE COPIES OF DESIGN SPECIFICATIONS HERE

Installation
- INSERT APPROXIMATE DATE OF INSTALLATION

Maintenance Requirements
- INSERT MAINTENANCE REQUIREMENTS FOR THE POLLUTION PREVENTION PRACTICE

[Repeat as needed.]

SECTION 6: INSPECTION AND CORRECTIVE ACTION

6.1 Inspection Personnel and Procedures

Personnel Responsible for Inspections

INSERT NAMES OF PERSONNEL OR TYPES OF PERSONNEL WHO WILL BE CONDUCTING SITE INSPECTIONS HERE

Note: All personnel conducting inspections must be considered a "qualified person." CGP Part 4.1.1 clarifies that a "qualified person" is a person knowledgeable in the principles and practices of erosion and sediment controls and pollution prevention, who possesses the skills to assess conditions at the construction site that could impact stormwater quality, and the skills to assess the effectiveness of any stormwater controls selected and installed to meet the requirements of this permit.

Inspection Schedule

Specific Inspection Frequency

INSERT INSPECTION SCHEDULE BASED ON CGP PARTS 4.1.2, 4.1.3, OR 4.1.4, WHICHEVER APPLIES

Rain Gauge Location (if applicable)

SPECIFY LOCATION(S) OF RAIN GAUGE TO BE USED FOR DETERMINING WHETHER A RAIN EVENT OF 0.25 INCHES OR GREATER HAS OCCURRED (only applies to inspections conducted for Part 4.1.2.2, 4.1.3, or 4.1.4.2)

Reductions in Inspection Frequency (if applicable)

- For the reduction in inspections resulting from stabilization: SPECIFY (1) LOCATIONS WHERE STABILIZATION STEPS HAVE BEEN COMPLETED AND (2) DATE THAT THEY WERE COMPLETED

  (Note: It is likely that you will not be able to include this in your initial SWPPP. If you qualify for this reduction (see CGP Part 4.1.4.1), you will need to modify your SWPPP to include this information.)

- For the reduction in inspections in arid, semi-arid, or drought-stricken areas: INSERT BEGINNING AND ENDING DATES OF THE SEASONALLY-DEFINED ARID PERIOD FOR YOUR AREA OR THE VALID PERIOD OF DROUGHT

- For reduction in inspections due to frozen conditions: INSERT BEGINNING AND ENDING DATES OF FROZEN CONDITIONS ON YOUR SITE

Inspection Report Forms

INSERT COPY OF ANY INSPECTION REPORT FORMS YOU WILL USE HERE OR AS ATTACHMENT D

6.2 *Corrective Action*

Personnel Responsible for Corrective Actions

INSERT NAMES OF PERSONNEL OR TYPES OF PERSONNEL RESPONSIBLE FOR CORRECTIVE ACTIONS

Corrective Action Forms

INSERT A COPY OF ANY CORRECTIVE ACTION FORMS YOU WILL USE HERE OR AS ATTACHMENT E

6.3 *Delegation of Authority*

Duly Authorized Representative(s) or Position(s):

Insert Company or Organization Name:
Insert Name:
Insert Position:
Insert Address:
Insert City, State, Zip Code:
Insert Telephone Number:
Insert Fax/Email:

[Repeat as needed.]

SECTION 7: TRAINING

Table 7-1: Documentation for Completion of Training

Name	Date Training Completed
INSERT NAME OF PERSONNEL HERE	INSERT COMPLETION DATE HERE
INSERT NAME OF PERSONNEL HERE	INSERT COMPLETION DATE HERE
INSERT NAME OF PERSONNEL HERE	INSERT COMPLETION DATE HERE
INSERT NAME OF PERSONNEL HERE	INSERT COMPLETION DATE HERE
INSERT NAME OF PERSONNEL HERE	INSERT COMPLETION DATE HERE
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INSERT NAME OF PERSONNEL HERE	INSERT COMPLETION DATE HERE
INSERT NAME OF PERSONNEL HERE	INSERT COMPLETION DATE HERE
INSERT NAME OF PERSONNEL HERE	INSERT COMPLETION DATE HERE

SECTION 8: CERTIFICATION AND NOTIFICATION

The following certification statement must be signed and dated by a person who meets the requirements of Appendix I, Part I.11.b. This certification must be re-signed in the event of a SWPPP Modification.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: _____ Title: _____

Signature: _____ Date: _____

[Repeat as needed for multiple construction operators at the site.]

SWPPP ATTACHMENTS

Attach the following documentation to the SWPPP:

Attachment A – Site Maps

Attachment B – Missouri DNR Land Disturbance Permit

Attachment C – Not Used

Attachment D – Inspection Form

Attachment E – Corrective Action Form

Attachment F – SWPPP Amendment Log

Attachment G – Subcontractor Certifications/Agreements

Attachment H – Grading and Stabilization Activities Log

Attachment I – Training Log

Attachment J – Delegation of Authority

Attachment K – Endangered Species Documentation

Attachment L – Historic Preservation Documentation

Attachment A – Site Maps

INSERT SITE MAPS CONSISTENT WITH TEMPLATE SECTION 2.6

Attachment B – Copy of Missouri DNR Land Disturbance Permit

INSERT COPY MO DNR Permit

Attachment C – Not Used

Attachment D – Copy of Inspection Form

INSERT COPY OF ANY INSPECTION FORMS YOU WILL USE TO PREPARE INSPECTION REPORTS

Attachment E – Copy of Corrective Action Form

INSERT COPY OF CORRECTIVE ACTION FORMS YOU WILL USE

Attachment F – SWPPP Amendment Log

No.	Description of the Amendment	Date of Amendment	Amendment Prepared by [Name(s) and Title]

Attachment G – *Sample* Subcontractor Certifications/Agreements

SUBCONTRACTOR CERTIFICATION
STORMWATER POLLUTION PREVENTION PLAN

Project Number: _____

Project Title: _____

Operator(s): _____

As a subcontractor, you are required to comply with the Stormwater Pollution Prevention Plan (SWPPP) for any work that you perform on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the office trailer.

Each subcontractor engaged in activities at the construction site that could impact stormwater must be identified and sign the following certification statement:

I certify under the penalty of law that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the practices described in the SWPPP.

This certification is hereby signed in reference to the above named project:

Company: _____

Address: _____

Telephone Number: _____

Type of construction service to be provided: _____

_____

_____

Signature: _____

Title: _____

Date: _____

Attachment H – *Sample* Grading and Stabilization Activities Log

Date Grading Activity Initiated	Description of Grading Activity	Description of Stabilization Measure and Location	Date Grading Activity Ceased (Indicate Temporary or Permanent)	Date When Stabilization Measures Initiated

Attachment I – *Sample* SWPPP Training Log

Stormwater Pollution Prevention Training Log

Project Name:

Project Location:

Instructor's Name(s):

Instructor's Title(s):

Course Location: _____ Date: _____

Course Length (hours): _____

Stormwater Training Topic: *(check as appropriate)*

- ☐ **Sediment and Erosion Controls**
- ☐ **Emergency Procedures**
- ☐ **Stabilization Controls**
- ☐ **Inspections/Corrective Actions**
- ☐ **Pollution Prevention Measures**

Specific Training Objective:_____

_____

Attendee Roster: *(attach additional pages as necessary)*

No.	Name of Attendee	Company
1		
2		
3		
4		
5		
6		
7		
8		

Attachment J – *Sample* Delegation of Authority Form

Delegation of Authority

I, _____ (name), hereby designate the person or specifically described position below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including the Construction General Permit, at the _____ construction site. The designee is authorized to sign any reports, stormwater pollution prevention plans and all other documents required by the permit.

_____ (name of person or position)
_____ (company)
_____ (address)
_____ (city, state, zip)
_____ (phone)

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in Appendix I of EPA's Construction General Permit (CGP), and that the designee above meets the definition of a "duly authorized representative" as set forth in Appendix I.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: _____

Company: _____

Title: _____

Signature: _____

Date: _____

Attachment K – Endangered Species Documentation

INSERT DOCUMENTATION CONSISTENT WITH SWPPP TEMPLATE SECTION 3.1

Attachment L – Historic Properties Documentation

INSERT DOCUMENTATION CONSISTENT WITH SWPPP TEMPLATE SECTION 3.2

Appendix 6

Check Lists

Stormwater Plan Review Check List

Stormwater Management Plan Review Checklist

Stormwater file #: _____

Reviewed by: _____

Date: _____

Project Name:

_____

Fee Received: _____

General Requirements:

Application Form:

- — Applicant name, address, telephone
- — Owner name, address, telephone
- — Design professional name, address, telephone
- — Design professional has current MO license
- — Legal description

If applicable:

- — Waiver due to zero runoff

Predevelopment Site Information:

- — Location map with adjacent roads
- — Topographic map 1:200 w/ 5'-0" intervals
- — For percolation or exfiltration systems: location & type of vegetative cover, soil types
- — Locations of streams and floodwater channels, including floodplain and floodway
- — Locations of lakes, ponds, streams, detention basins; their normal shorelines, floodplains
- — Locations of farm drains, inlets, outfalls, storm sanitary and combined sewers and outfalls, septic tank systems, seeps, springs, wells
- — Locations of nearby off-site water management facilities: wells, lakes, drainageways, affected by proposed development

Existing drainage facilities maintained/altered:

- — Size, slope, depth
- — Outfalls, receiving waters
- — Elevations, cross sections, profiles
- — Construction materials

New stormwater facilities:

- — Detention basins and other water quality elements
- — Design details

- — Locate existing and proposed impervious surfaces

- — Grading and paving plans and specifications

- — Location and extent of Right of Way and easements

- — Identify special maintenance procedures

Stormwater management system design calculations:

- — Design storms used
- — For detention basins: storage volumes, water surface elevations, outflow rates
- — Acreages and percentages of property proposed for:
  - — Impervious surfaces
  - — Pervious surfaces
  - — Lakes, canals, detention areas, etc
  - — Total project acreage
  - — Other: _____
- — Runoff routing calculation showing discharge, elevations and volumes retained/detained during storm events
- — Calculations for minimum building floor and road elevations
- — Calculations for inlets, pipes, and ditches

Narrative:

- — Identify potential pollution sources
- — Identify project managers and their area of control
- — Temporary and permanent structural and nonstructural BMPs
- — BMP implementation schedule
- — Temporary and permanent stabilization practices
- — Dewatering methods
- — Dust minimizing procedures
- — Method of waste disposal
- — Sources of nonstormwater discharge
- — Sediment removal and disposal process
- — Pollution prevention measures for nonstormwater discharges

- — Site specific erosion and sediment controls

- — Operation and maintenance procedures for stormwater management facilities: cleaning frequency, access routes, special equipment

- — Identify party responsible for operation and maintenance

Classification:

- — Less than 25 acres
- — 25 to 200 acres
- — Over 200 acres

Stormwater Pollution Prevention Plan (SWPPP)

Maximize allowable release rate of stormwater:

- — Rate shall not exceed pre-development rate for 2- and 10-year storms
- — 25-year storm shall have release rate of 15-year storm
- — Calculate release rate based on total drainage area
- — Storage volume based on project area only
- — At minimum, storage volume for 25-year storm
- — Control runoff within each watershed
- — Emergency overflow facilities for 100-year storm capacity

Allowable locations for stormwater runoff channels:

- — Depressed median of double roadway
- — Centered on rear lot lines

— Depressed area along roadway
— Landscaped areas
— Curb and gutter that discharge into detention basin
— Drainage channels and swales

Utility drainage easement:
— Along rear lot lines < 20' wide
— No structures
— No fences
— No shrubber or trees

Manholes within floodplain, street for detention, or area designed for floodwater or stormwater:
— Watertight bolted manhole cover
— Watertight concealed pick-hole cover
— Rim elevation at/above 100-year flood

— Max finish grade 3:1

— Retaining walls over 30" require guards

— Grading plans for sites < 1 acre require erosion & sediment control

— Protect adjacent sites from water, erosion and sediment

— Provide 50'-0" maintenance and drainage easement along natural watercourses

Stormwater design:
— Detention basins: 25-year
— Primary drainage systems: 25-year
— Bridges: 50-year
— Secondary drainage systems: 15-year
— Critical areas may require 100-year, per city manager

Calculations:
— 0 to 25 acres: Rational Method
— Over 25 acres: Technical Release 55 (TR-55)

Open Channels:
— May be at rear or sides of property
— 50'-0" drainage setback from channel
— Area inlets required if flow greater than 1 cf/s, to prevent flow over sidewalks/curbs

Inlets and junction boxes
— Spaced per city standards
— 100-year design storm level indicated

— Building gutters may not discharge directly into city's enclosed system

— If enclosing an existing natural drainageway that carries < 50 cf/s during design storm event, size enclosure for 50-year 20-minute storm

Dry detention facilities:
— 20'-0" perimeter maintenance easement
— Maximum 3:1 slopes

- Facilitate complete interior drainage to dry bottom basins
- May be secondary multipurpose recreational features
- Maximum pond limits: < 25'-0" hor. and < 2'-0" vert. from lowest building sill elevation
- Entire reservoir seeded, fertilized, mulched, sodded or paved
- Fully paved flow channels prohibited. Allowed: turf, aggregate, pavers, or approved method.

Wet detention facilities:

- 20'-0" perimeter maintenance easement
- Maximum 3:1 slopes
- Control elevation ≥ 2'-6" below minimum road centerline elevation
- Side slopes < 3:1 within 2'-0" vertical of control elevation, then as steep as soil allows
- For fish, > 1/4 of permanent pool minimum 10'-0" deep
- Provide maintenance plans
- Maximum pond limits: < 30'-0" hor. and < 2'-0" vert. from lowest building sill elevation

Underground Storage:

- Type of facility
- Depth and volume of storage
- Inlet/outlet device details and locations
- Emergency overflow provisions
- Surface and groundwater pollution control measures

Developments adjoining floodplain for 100-year flood:

- Indicate floodplain and floodway
- Include plans and specifications req'd for federal, state, county and local laws/regs:
  - Zoning and subdivision req'mts
  - Building code req'mts
  - Other agency req'mts

Channel modifications:

- Channels not altered to reduce flow
- Cross sections of existing and proposed channel
- Plan indicating existing constructions and obstructions
- Hydrographs and/or flood routing calculations and backwater curve profiles of proposed waterway for 100-year storm
- Engineering evaluation and provisions for eliminating upstream and downstream adverse impacts
- Minimum floor elevations determined by FEMA FIRM map or backwater curve profiles for 100-year storm
- Plan indicating areas reserved for flood routing, detention or storage, including restrictions, dedications and maintenance responsibilities

Detention Storage within floodplain:

- Net increase of storage volume above existing credited to development
- No credit for volumes below regulatory flood elevation

Verification of adequacy (recommended but not req'd for projects < 50 acres):

- Detention volume
- Tributary (Q) peak runoff to basin
- Balanced maximum outflow rate from low-flow structure

- Ratios of inflow to outflow rates
- Sizing of the overflow facilities
- Stability of detention dikes
- Safety features
- Maintenance features

Projects 50 to 200 acres:

- Flood routing calculations in tabulated form
- Proof of adequacy of detention volume and sizing for low-flow structure

- Projects over 200 acres: verification of adequacy according to complexity of design

Installation of stormwater runoff control measures:

- Positive stormwater runoff control provided during development
- Schedule of installation, construction, modification to drainage facilities
- Erosion control measures and schedule for installation

Erosion and sedimentation control criteria:

- State approved standards
- Tree, topsoil, vegetative cover preservation and restoration
- Surface stabilization
- Runoff control measures (berms, dikes, sediment traps, barriers, etc.)
- Inlet and outlet protection
- Stream bank protection
- Schedule development activities and protection activities for minimal impact
- Landscaped areas may be used for post-construction water quality controls

Rights of Way and Easements:

- Stormwater management facilities constructed w/in easement or R-O-W, and legally accessibly for maintenance
- Minimum access width:
  - Open drainage channel or facility: 50'-0" from top of bank
  - Greenways: width of greenway
  - Pipes and culvert: 20'-0" centered
  - Detention areas: 20'-0" continuous around total area
  - Connecting access: 20'-0"
- Easements must include top of bank width and maintenance access width
- Maintenance access begins at point of bank or slope of the facility
- Additional access where required by City Manager

Maintenance Responsibility for Stormwater Management Facilities:

- Annual inspection written report, sent to City Manager
- Control weed growth, sediment, and mosquitoes/other insects
- After occupancy, Owner responsible for maintenance
- During construction, Developer responsible for maintenance
- Performance and Maintenance Security for 2 year period after completion

— Allowable discharges: waterline flushing/potable water, landscape irrigation, diverted stream flows, groundwater, footing/foundation drains, A/C condensation, springs, non-commercial car washing, wetland flows, firefighting

Drive entrances:

— Commercial: 1/4" per foot
— Residential: 1/2" per foot

Construction Site Inspection Check List

CONSTRUCTION SITE / LAND DISTURBANCE INSPECTION CHECK LIST

City of Cape Girardeau, Mo
Department of Public Works - Storm Water Division
2007 Southern Expressway Cape Girardeau, Mo 63703
PH 573-339-6351 Fax 573-339-6363

This form is to be used by City Staff for Construction Site Inspections.

Inspection Date: _____ Inspected By: _____

Project Name: _____ Contractor: _____

Project Location: _____

Location of Discharge: _____

Inspection Type: Periodic _____ ≥ 1/2 in rain _____ Complaint _____

Pre-Con _____ Drive By _____ Completion _____

INSPECTION CHECK LIST

	OK	NOT OK	N/A
1. Erosion / sediment control BMP's installed per approved plans?			
2. Mud tracking controlled at entrance /exit?			
3. Streets and adjacent property free of sediment runoff?			
4. Litter, construction debris, and chemicals controlled?			
5. Disturbed areas stabilized after activity ceased?			
6. Sedimentation basins properly installed / maintained?			
7. Perimeter protection BMP's properly installed / maintained?			
8. Discharge location erosion control devices adequate?			
9. Ditch checks properly installed / maintained?			
10. Inlet protection properly installed / maintained?			
11. Streams protected from sediment?			
12. Permanent stabilization measures properly installed / maintained?			
13. Stockpiles are stabilized or contained by BMP?			
14. Temporary BMP's no longer needed removed?			
15. Other?			

Comments: _____

Recommendations: _____

Verbal / Written Notification given to (if necessary): _____

Inspectors Signature: _____ Date: _____

SWPPP Review Check List

SWPPP Checklist

Section 1: Contact Information/Responsible Parties

- — Contact information (name, role, address, phone, fax, email) for:
  - o Construction site Operator
  - o Subcontractor(s)
  - o Company SWPPP is prepared for
  - o Company SWPPP is prepared by
  - o Emergency 24-hour contact
  - o Owner's Development Stormwater Team
- — Date of:
  - o SWPPP preparation
  - o Estimated project start
  - o Estimated project completion

Section 2: Site Evaluation, Assessment and Planning

- — Project/site information, including address, subdivision, latitude/longitude
- — Indicate if site is located in Indian Country lands or has religious/cultural significance to an Indian tribe, including tribe name
- — Is project in response to a public emergency, such as a natural disaster, and if so, provide substantiating information and description of construction
- — Does project discharge stormwater into an MS4?
- — List of receiving waters that receive stormwater directly from site or the MS4
- — List of Impaired waters/TMDL, including pollutants, if TMDL has been completed, title of TMDL, pollutants for which there is a TMDL, method for determining if site discharges to an impaired water
- — List of Tiered waters and which tier
- — Description of project, including total size (in acres), area of construction, and area of phases
- — Construction support activities such as batch plants, staging yards, material storage, etc. and contact information for responsible parties
- — Description of each phase of project, including approximate start and end dates, identifying areas for stormwater control, list of stormwater control measures, and estimated date of removing stormwater controls
- — Types of allowable non-stormwater discharges present at site – also indicate on site map – refer to Chapter 23 of the City of Cape Girardeau's ordinance for allowable non-stormwater discharges
- — Site maps: undeveloped site, developed site, site phases,

Section 3: Documentation of Compliance with other Federal Requirements

- — Determine if endangered species or their habitat are at the site, and provide source of information. Eligibility criteria:
  - o A. No federally listed threatened/endangered species or habitats at site. Provide source of threatened/endangered species info: USFWS or NMFS, public species list or other source.
  - o B. Discharges and discharge-related activities were addressed in another Operator's certification of eligibility, that still has NPDES permit coverage. Agree to abide by effluent limitations/conditions in other Operator's certification. Provide tracking number from other Operator's NOI.
  - o C. Federally listed threatened/endangered species are likely to occur at site but site activities and discharge are not likely to adversely affect species or habitat. Provide list of species in action area and distance between site and critical habitats. Include site map with NOI.

- D. Coordination w/ service indicates discharges and activities are not likely to adversely affect species or critical habitat. Include correspondence with Service in SWPPP and NOI.
- E. Consultation completed between Federal Agency and US Fish & Wildlife Service and/or National Marine Fisheries Services. Addressed effects of discharges and activities on species and critical habitat. Results conclude that site activities and discharges not likely to jeopardize existing species or critical habitat OR written concurrence from Services that discharges and activities are not likely to jeopardize species or habitat. Include correspondence in SWPPP and NOI.
- F. Construction activities authorized through permit under Section 10 of ESA, addressing effects of discharges and activities on species and habitat. Include correspondence in SWPPP and NOI.

— Determine if project is a historic property? If so, identify stormwater controls, determine if stormwater controls will impact historic property and provide documentation
— What type of stormwater controls will be installed:
- Dike
- Berm
- Catch Basin
- Pond
- Stormwater Conveyance Channel
- Culvert
- Other

— Will subsurface earth disturbing stormwater controls effect historic properties?
— Include correspondence with THPO, SHPO or tribal representatives
— Safe Drinking Water Act Underground Injection Control – are any of the following installed:
- Infiltration trenches
- Pre-cast/pre-built subsurface detention vaults/chambers/etc to capture/infiltrate stormwater flow
- Drywell/seepage pit/improved sinkholes

Section 4: Erosion/Sediment Controls

— Are any surface waters w/in 50'-0" of construction disturbances?
- Provide/maintain 50'-0" natural buffer
- 50'-0" Natural buffer + erosion/sediment controls
- Infeasible to provide natural buffer + erosion/sediment control that reduce sediment load equivalent to 50'-0" natural buffer.
- Buffer exceptions:
  - No discharge of stormwater to the surface water
  - No natural buffer exists
  - Linear project where compliance alternatives are infeasible
  - Small residential lot construction
  - Buffer disturbances authorized under CWA Section 404 Permit
  - Buffer disturbances occur (pier, boat ramp, trail)

— Identify the following controls, including description, specs, instructions for installation and maintenance, approximate installation date:
- Perimeter Controls
- Sediment track out controls
- Stockpiled Sediment/Soil Controls
- Dust Minimization Controls
- Steep Slope Controls
- Topsoil Controls
- Soil Compaction Controls
- Storm Drain Inlet Controls

- Stormwater Conveyance Channel Controls
- Sediment Basin Controls
- Chemical Treatment Controls
- Dewatering Practices
- Other Stormwater Controls
- Site Stabilization Controls: Vegetative/Nonvegetative/Temporary/Permanent

Section 5: Pollution Prevention Standards

- Identify Potential Sources of Pollution at site including pollutant-generating activity, identify pollutants that could be discharged in stormwater, location on site of pollutant
- Identify spill prevention/response procedures
- Identify Pollution Prevention Practices for:
  - Fueling/vehicle maintenance
  - Equipment/vehicle washing
  - Storage/handling/disposal of construction products/materials/wastes
  - Pesticides/herbicides/insecticides/fertilizers/landscape materials
  - Diesel Fuel/Oil/Hydraulic Fluids/Other petroleum products and chemicals
  - Hazardous/toxic wastes
  - Construction and domestic waste
  - Sanitary waste
  - Washing of applicators/containers for paint/concrete/other materials
  - Fertilizers
  - Other Pollution Prevention practices

Section 6: Inspection and Corrective Action

- Inspection Personnel and Procedures:
  - List of inspection personnel
  - Inspection schedule/frequency
  - Rain gauge location
  - Reduction in inspection frequency due to stabilization, drought or freeze
  - Inspection report form template
- Corrective action
  - List of personnel responsible for corrective action
  - Corrective action form template
- Delegation of authority
  - Designate authorized representative, including company name, position, address, phone number, fax and email

Section 7: Training

- List of names of personnel completing ESC training and date training completed

Section 8: Certification and Notification

- Certification indicating the SWPPP was prepared by qualified personnel, and the completeness and accuracy of the information, including printed name, title, signature and date

SWPPP Attachments

- Site Maps, including location map, phase maps, existing and proposed contours, and indicating areas of disturbance, controls, temporary structural and stabilization practices, material/waste/equipment storage areas, locations of surface waters and discharge points, final and permanent stabilization measures
- Missouri DNR Land Disturbance Permit
- NOI

- Inspection Form – include date, name/qualification of inspector, weather information, location of sediment/pollution discharge, BMPs requiring maintenance, BMPs that have failed, BMPs that are needed, corrective actions, updates to SWPPP, signed/certified
- Corrective Action Form
- SWPPP Amendment Log – include description of amendment, date of amendment, and name/title of who prepared amendment
- Subcontractor Certifications/Agreements – subcontractor's agreement to comply with SWPPP
- Grading and Stabilization Activities Log – include date grading initiated and ended, description of grading, description and location of stabilization measures, date of stabilization measures
- Training Log – instructor's name/title, course location/date, training topic, attendee roster
- Delegation of Authority
- Endangered Species documentation
- Historic Preservation Documentation

Appendix 7

City Issued Development Permits

Stormwater Management Permit

STORMWATER MANAGEMENT PERMIT/APPLICATION
CITY *of* CAPE GIRARDEAU

DEVELOPMENT SERVICES DEPARTMENT, 401 INDEPENDENCE ST, CAPE GIRARDEAU, MO 63703 (573) 339-6327

Permit fee:
25 acres or less - $35; 26-200 acres - $70;
Over 200 acres - $140

Application For: Grading/Fill Only ☐ Site Development ☐ Development of Entire Project ☐

Development of Phase(s) _____ of _____ ☐ Subdivision Development ☐ Area of Site _____ (acres or S. F.)

Project Title

Property Address/Location (If no address, attach legal description)

Brief Description of Work to be Performed (Attach plans)

Applicant		**Property Owner** *(if other than Applicant)*	
Mailing Address	City, State, Zip	Mailing Address	City, State, Zip
Telephone	Email/Fax	Telephone	Email/Fax
Professional Engineer's Name		**Professional Engineer's Firm**	
Address		City, State, Zip	
Telephone	Fax	Email	

CERTIFICATION

I, THE UNDERSIGNED, DO HEREBY STATE THAT I HAVE READ AND FULLY UNDERSTAND THE PROVISIONS OF THIS APPLICATION AND FURTHER, BY MY SIGNATURE, I HEREBY AGREE TO MAINTAIN COMPLIANCE WITH THE CITY OF CAPE GIRARDEAU STORMWATER MANAGEMENT REGULATIONS. ANY CHANGES IN OR EXPANDED SCOPE OF THAT REPRESENTED HEREIN WILL NECESSITATE SUBMITTAL OF A REVISED PLAN AND APPLICATION.

_____ _____

Applicant Signature Date

OFFICE USE ONLY

Date Received _____ Received By (Initials) _____

Permit Number_____

Reviewed By: Engineering _____ (initial) Planning _____ (initial)

Copies to: Engineering Inspection Services Development Permit File

Approved By: _____ **Date:** _____

Revised 6/14/2012

CITY OF CAPE GIRARDEAU
STORMWATER MANAGEMENT PERMIT/APPLICATION
INFORMATION SHEET

Cape Girardeau, Mo. Stormwater Management Regulations (Ordinance No. 253, dated Aug. 15, 2011) require that positive stormwater run-off and erosion control measures must be taken during construction of any stormwater management facility.

Any stormwater management facility for which a permit has been issued as a part of a subdivision improvement plan must be included with as-built drawings and certified to have been constructed accordingly.

Any stormwater management facility for which a permit has been issued individually or as a part of a site development plan must be certified to have been constructed in conformance with the approved drawings prior to issuance of an occupancy permit.

If located in a designated floodplain, a Floodplain Development Permit is required before any work begins.

A DNR Land Disturbance Permit is required for construction sites of one (1) acre or more in area.

Provide a stormwater pollution prevention plan, in accordance with Chapter 23 of the City of Cape Girardeau Code of Ordinances.

Floodplain Development Permit

FLOODPLAIN DEVELOPMENT PERMIT/APPLICATION
CITY *of* CAPE GIRARDEAU

DEVELOPMENT SERVICES DEPARTMENT, 401 INDEPENDENCE ST, CAPE GIRARDEAU, MO 63703 (573) 339-6327

Permit fee:
Development in Floodplain - $25
Development in Floodway - $50

Project Title	**Area of Site (acres or Sq. Ft.)**

Property Address/Location – or Legal Description (if no address)

Type of Development (Check one; attach plans) Filling ☐ Grading ☐ Excavation ☐ New Construction ☐

Improvement/Addition to Existing ☐ If improvement, cost of improvement: _____ Fair Market Value pre-improvement _____

Principal Use	**Accessory uses (storage, parking, etc.)**

Are the proposed improvements located in a designated: Floodway ☐ Floodplain Fringe ☐

(NOTE: if the answer is "floodway," certification must be provided prior to the issuance of a permit that proposed development will result in no increase in the base flood (100-year) elevation.

Elevation of the 1% Annual Chance Flood (BFE)	**Source** (map panel number)
Elevation of the proposed development site	**Elevation/floodproofing requirement** (min at or above BFE)

Applicant		**Property Owner** *(if other than Applicant)*	
Mailing Address	City, State, Zip	Mailing Address	City, State, Zip
Telephone	Email/Fax	Telephone	Email/Fax

Professional Engineer's Name	**Professional Engineer's Firm**
Address	City, State, Zip

Telephone	Fax	Email

Other Required Permits (applicant is responsible for obtaining):

MoDOT Right-of-Way ☐ City Stormwater ☐ City Building Permit ☐
State of Missouri ☐ (e.g., MoDNR Land Disturbance permit for sites of 1 acre or more)
Corps of Engineers ☐
(e.g., Section 404, Clean Water Act for dredging, filling channel changes, in or beside rivers or streams, and for wetland considerations.)

CERTIFICATION

I, THE UNDERSIGNED, DO HEREBY STATE THAT I HAVE READ AND FULLY UNDERSTAND THE PROVISIONS OF THIS APPLICATION AND FURTHER, BY MY SIGNATURE, I HEREBY AGREE TO MAINTAIN COMPLIANCE WITH THE CITY OF CAPE GIRARDEAU FLOODPLAIN DEVELOPMENT ORDINANCE REGULATIONS, AND ALL OTHER APPLICABLE CITY ORDINANCES AND THE LAWS AND REGULATIONS OF THE STATE OF MISSOURI. THE UNDERSIGNED HEREBY MAKES APPLICATION FOR A PERMIT TO DEVELOP IN A FLOODPLAIN OR FLOOD-PRONE AREA. THE WORK TO BE PERFORMED, INCLUDING FLOOD PROTECTION WORKS, IS AS DESCRIBED ABOVE AND IN ATTACHMENTS HERETO. ANY CHANGES IN OR EXPANDED SCOPE OF THAT REPRESENTED HEREIN WILL NECESSITATE SUBMITTAL OF A REVISED PLAN AND APPLICATION.

_____ _____
Applicant/Owner Signature Date

OFFICE USE ONLY

Date Received _____ Received By (Initials) _____ Payment Date _____ Permit Number _____

Comments or Conditions: _____

_____

_____

Approved By: _____ **Date:** _____

Revised 5/16/2012

CITY OF CAPE GIRARDEAU
FLOODPLAIN DEVELOPMENT PERMIT/APPLICATION
INFORMATION SHEET

All provisions of the Floodplain Management Regulations (Ordinance No. 9245, dated Aug. 15, 2011) of the City of Cape Girardeau shall be complied with.

Issuance of this permit will be with the condition that the lowest floor (including basement) of any new or substantially improved residential structure will be elevated to or above the base flood elevation. If the proposed development is a non-residential structure, issuance of this permit will be with the condition that the lowest floor (including basement) of any new or substantially improved structure will be elevated or floodproofed to or above the base flood elevation.

Issuance of this permit will be with the condition that the developer/owner will provide an elevation certification prepared by a registered engineer, architect, or land surveyor of the "as-built" lowest floor elevation of any new or substantially improved structure covered by the permit, or for a floodproofed non-residential structure, a flood proofing certificate, before structure can be occupied.

Appendix 8

City of Cape Stormwater Web Page

http://www.cityofcapegirardeau.org/PublicWorks/Storm-Water-Division.aspx

Inspections

24/7 access to all online services: payments, forms, registration and e-updates

CONNECT HERE

Stormwater Information: Prevention, Permits and Pla

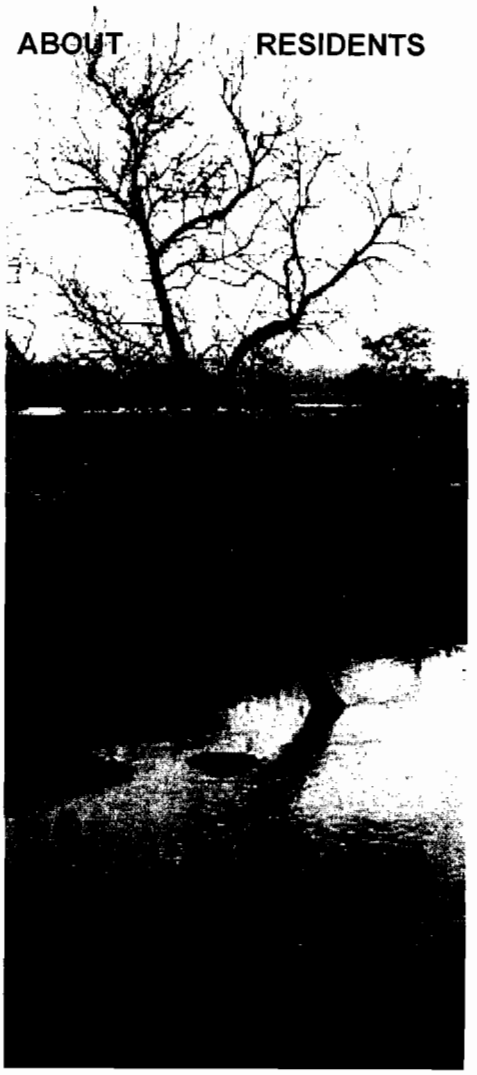
Development Services Division - Inspection Services
City Hall - 2nd Floor 401 Independence, Cape Girardea
Phone 573-339-6327 | Fax 573-339-6303 | Email

What is Stormwater?

Stormwater is pure rainwater plus anything the rain carries along with it. Unlike sewage, stormwater is not treated. Common stormwater pollutants include litter, chemical pollution and 'natural' pollution like leaves, garden clippings or animal droppings. The majority of Cape Girardeau's stormwater ends up in the Mississipp River, which is the drinking water source for many communities.

What are Federal Standards Regarding Stormwater?

Cape Girardeau is one of many Missouri communities that was required to submit a Notice of Intent application to the Missouri Department of Natural Resources for coverage under the Missouri Phase II MS4 general stormwater permit, as moderated by the Environmental Protection Agency (EPA) Clean Water



Act. This program requires that the City develop a stormwater program which addresses water quality issues. Phase II is designed to look at nonpoint pollution from all sources. Nonpoint pollution is water that cannot be traced to source, such as rooftops, paved roads and parking lots. Phase II requires that the City of Cape Girardeau meet the following minimum controls:

- Public education and outreach
- Public involvement and participation
- Illicit discharge detection
- Construction site stormwater runoff control
- Post-construction stormwater management in new development and re-development
- Pollution prevention, good housekeeping for community operations

How You Can Prevent Stormwater Pollution

Typical activities that can cause stormwater pollution include the following, and should be avoide

- Washing your car with detergent and chemicals, then allowing water to run down the stree
- Performing vehicle maintenance on the street and allowing oil and substances to flow in th
- Disposing of garden waste in drains, or accumulating leaves and yard clippings in gutters
- Dropping litter where it can be washed down outdoor drains during a rain.
- Hosing dirt, soil and other waste from your driveway or sidewalk in to a street drain.
- Leaving behind pet droppings that can be carried to the stormwater system.

Required Stormwater Permits

If you have questions, or you need to know if your project requires any type of stormwater permit contact the Development Services Department at 573-339-6327.

Stormwater Management Permit

Stormwater Management Permits assure that runoff is adequately controlled. Stormwater Management Plans and Permits are required for any development for which no improvement plans have been approved, and developers must obtain a stormwater permit before a building permit is issued. Fees apply.

Download Stormwater Management Permit Application

Fill/Grading Permit

To complete any fill work or grading on a project, a Fill/Grading permit application must be completed.

Download Fill/Grading Permit Application

Floodplain Devel

A Floodplain Deve must be obtained addition or alterati structure or obstru flood hazard area, grading or filling. T Emergency Manag (FEMA) provides f maps.

Download Floodpl Permit Application

Stormwater Pollution Prevention Plans for Contr

The following resources, templates and links can be used, along with appropriate permit applicati your next project's Stormwater Pollution Prevention Plan (SWPPP).

Download SWPPP Checklist

Download SWPPP Editable Templat

SWPPP Development References

Developing your SWPPP
Original SWPPP Template
Missouri DNR Land Disturbance Permit
Missouri DNR CGP (MORA)
Environmental Protection Agency (EPA) CGP
MS4 Permit
Protecting Water Quality
Stormwater Community Management Guide
Managing Environmental Responsibilities
Endangered Species Information
State Historic Preservation Office
Tribal Historic Preservation Office

Best Management Practice

Kentucky Erosion Prevention Field G
Maryland Stormwater Design Manual
MSD Stormwater Best Management
APWA / MARC Best Management Pr
Urban Small Sites Best Management

City of Cape Girardeau
401 Independence
Cape Girardeau, MO 63703
PHONE 573.339.6300

Appendix 9

Parks Dept Newsletter Insert

For Parks newsletter

Storm Water Notes: Water Pollution Prevention

As we go about the everyday activities of summer, the Cape Public Works Department would encourage citizens to be mindful of water pollution prevention. There are many simple ways to help reduce water pollution levels in our creeks and waterways.

Do Not Over Fertilize The Lawn -Use only the amount needed, which is usually far less than you think. Most lawns would be quite healthy by just leaving the clippings from mowing in place to decay into the soil.

Do Not Dump Fluids In The Drains – Properly dispose of used oil and other fluids. Do not dump these in the ditches or drains. That causes the oil to run into the creeks and to the river leaving pollution effects along the way.

Do Not Sweep Grass Clippings Into The Drain – This can clog the drain causing local flooding. If the grass washes away it ends up in the creeks. This increases the amount of nitrogen and organic matter in the stream which is bad for plants and animals living in the water. Composting is a great way to handle yard waste to avoid polluting the waterways.

Direct Roof Drains To Flow Over The Lawn – Flow from roof drains should not be set to flow over paved areas but rather to flow over land though grassy areas. This allows the water to soak into the ground, water the plants, and filter pollutants from the water.

Repair Leaks On Vehicles – The oils and other fluids that drip on pavement will get washed in to the creeks. Even a small amount of these fluids can cause a big pollution effect in the stream.

Do Not Litter – In addition to being unsightly, litter clogs drains and is a pollutant. Plastics, Styrofoam, metal, and paper products end up in streams or along the banks. These pollutants cause harm to the plants and animals living in and around the waterways.

Pick Up A Little Trash When You Visit A Park Or River - Others will see your actions and perhaps hesitate to litter next time. Every small action makes a difference.

Properly Dispose Of Pet / Animal Waste - Animal waste can be a major source of water pollution. The waste washes in to the creeks overloading the nutrient levels causing low oxygen levels. This is bad for the plants and animals in the water.

Be Careful With Use Of Lawn And Household Chemical Products – Misuse or improper application of lawn and household chemicals can pollute the waterways. Only use these products according to the directions.

Appendix 10

Water Bill Note Example

CITY OF CAPE GIRARDEAU UTILITY BILLING INFORMATION

Customer Service:

Contact us at: (573) 339-6322

Make check payable to: City of Cape Girardeau

Mail payment to: P.O. Box 617
Cape Girardeau, MO 63702

Office Location and Hours:
401 Independence St.
Monday - Friday
7:30 a.m. until 5:00 p.m.

Returned Check Penalty:
Each check returned unpaid from the bank will incur a $20.00 penalty plus 2% of the face value of any checks written for more than $100.00

Late Payment Penalty:
Bills paid after the due date will be assessed a 10% penalty.

CLEAN WATER - EVERY DROP COUNTS

Other Methods of Payment: You may pay in person or use the Drop Box for after-hours payments at 401 Independence. Bills with **current charges only** can be paid at some local grocery stores. Sign up for **Auto-Pay** to have your monthly payment deducted automatically from your checking account on your bill due date - after you receive and review your bill.

Disconnection for Non-Payment: Accounts are subject to disconnection after the delinquent date. Notices will be mailed at least 5 working days prior to disconnection. No other notices will be given. A disconnect fee will be charged once the account is assigned to the service person for disconnection. Once disconnect is complete, there will be a reconnect fee to restore service.

E-NEWSLETTER: If you would like to sign up for Cape City E-News, send an e-mail to news@cityofcapegirardeau.org or call 339-6391.

CITY OF CAPE GIRARDEAU UTILITY BILLING INFORMATION

Customer Service:

Contact us at: (573) 339-6322

Make check payable to: City of Cape Girardeau

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Appendix 11

Storm Drain Marking

Storm Drain Stenciling Program
Overview

The City of Cape Girardeau is excited to have a program that allows volunteers to participate in the City's water pollution prevention efforts. The Storm Drain Stenciling Program is set up to allow volunteers of all ages, and from all areas of the community, to participate.

The Stenciling Program has volunteers paint a message on the storm drain inlets that informs the public "No Dumping ..... Drains to River". This will increase people's awareness of the pollution impact of dumping waste in a drain.

The City will provide the supplies for this program to volunteers or volunteer groups. Coordination of the work should be done through the City's Stormwater Coordinator.

The Guidelines and Liability Waiver Form can be viewed and printed from the City website . . . . . www.cityofcapegirardeau.org

Volunteers interested in participating in the program can contact:

Stan Polivick, Storm Water Coordinator
573-339-6351
spolivick@cityofcapegirardeau.org

Guidelines for Storm Drain Stenciling

These guidelines are to be followed by volunteers stenciling the "No Dumping ... Drains To River" message on City storm drain inlets.

1. Each volunteer (or their parent / guardian) must sign the Waiver / Release Form provided by the City Public Works Department. These Waiver Forms must be delivered to the Public Works Dept prior to any work being done.

2. When children under the age of 16 are involved in the work an adult supervisor is to be present at all times at each work site. The City will not provide any supervision.

3. All volunteers must be aware of the need to exercise caution for safety when working around the streets and storm drains.

4. All volunteers are to wear a high visibility safety vest when working on the stenciling program. The City will allow volunteers to borrow safety vests. Volunteers should take care not to damage or mar the safety vests. Volunteers will be asked to pay for damaged safety vests.

5. An orange safety cone is to be placed at the edge of street a short distance away from the work area to warn approaching traffic of the work area. The City will allow the volunteers to borrow the safety cones.

6. The stencil will be provided by the City Public Works Department. The paint will be provided by the City Public Works Department.

7. The volunteer group will advise the City Public Works Department of the locations where the stenciling will be done. The Public Works Dept. may provide suggestions on where to do the stenciling.

8. The volunteer group will coordinate with the City Public Works Department to schedule when the work will be done. Every effort will be made to accommodate the preferences of the volunteers.

9. The volunteer group will provide a report to the Public Works Dept when the work is complete. This report will give the locations where the stenciling was done and the dates.

10. The volunteer group is to return to the Public Works Department any unused paint, the stencils, all safety vests, and all safety cones when the work is completed.

Guidelines for Storm Drain Stenciling

These guidelines are to be followed by volunteers stenciling the "No Dumping ... Drains To River" message on City storm drain inlets.

1. Each volunteer (or their parent / guardian) must sign the Waiver / Release Form provided by the City Public Works Department. These Waiver Forms must be delivered to the Public Works Dept prior to any work being done.

2. When children under the age of 16 are involved in the work an adult supervisor is to be present at all times at each work site. The City will not provide any supervision.

3. All volunteers must be aware of the need to exercise caution for safety when working around the streets and storm drains.

4. All volunteers are to wear a high visibility safety vest when working on the stenciling program. The City will allow volunteers to borrow safety vests. Volunteers should take care not to damage or mar the safety vests. Volunteers will be asked to pay for damaged safety vests.

5. An orange safety cone is to be placed at the edge of street a short distance away from the work area to warn approaching traffic of the work area. The City will allow the volunteers to borrow the safety cones.

6. The stencil will be provided by the City Public Works Department. The paint will be provided by the City Public Works Department.

7. The volunteer group will advise the City Public Works Department of the locations where the stenciling will be done. The Public Works Dept. may provide suggestions on where to do the stenciling.

8. The volunteer group will coordinate with the City Public Works Department to schedule when the work will be done. Every effort will be made to accommodate the preferences of the volunteers.

9. The volunteer group will provide a report to the Public Works Dept when the work is complete. This report will give the locations where the stenciling was done and the dates.

10. The volunteer group is to return to the Public Works Department any unused paint, the stencils, all safety vests, and all safety cones when the work is completed.

CITY *of* CAPE GIRARDEAU

PUBLIC WORKS DEPARTMENT

Storm Drain Stenciling Program
Waiver & Release of Liability Form

In consideration of participation in the City of Cape Girardeau Storm Drain Stenciling Program the undersigned acknowledges and agrees that:

- There is potential risk of injury when performing the work to stencil storm drains due to the location of the drains at the edge of the street and near moving traffic. These injuries could be significant, even resulting in death. The risk of injury can be diminished by use of proper safety equipment and safety precautions, however, the potential risk of injury cannot be eliminated.

- I knowingly and freely assume all such risks, both known and unknown, even if arising from the negligence of others, and assume full responsibility for my participation.

- I willingly agree to comply with the stated and customary guidelines for participation.

- I, for myself and on behalf of my heirs, assigns, personal representative, and next of kin, hereby release and hold harmless the City of Cape Girardeau, their officials, officers, agents, and /or employees, with respect to any and all injury, disability, death or loss or damage to person or property whether arising from the negligence of others or otherwise.

- I have read this release of liability and assumption of risk agreement, fully understand its terms, understand that I have given up substantial rights by signing and sign it freely and voluntarily without any inducement

_____ _____

Name of Volunteer Signature of Volunteer

OR

_____ _____

Name of Parent or Guardian Signature of Parent of Guardian

_____ _____

Date Signed

_____

Address of Volunteer

2007 Southern Expressway Cape Girardeau, MO 63703 573-339-6351 Tel 573-339-6363 Fax
cityofcape.org/publicworks facebook.com/capepublicworks

Storm Drain Stenciling Program
Overview

The City of Cape Girardeau is excited to have a program that allows volunteers to participate in the City's water pollution prevention efforts. The Storm Drain Stenciling Program is set up to allow volunteers of all ages, and from all areas of the community, to participate.

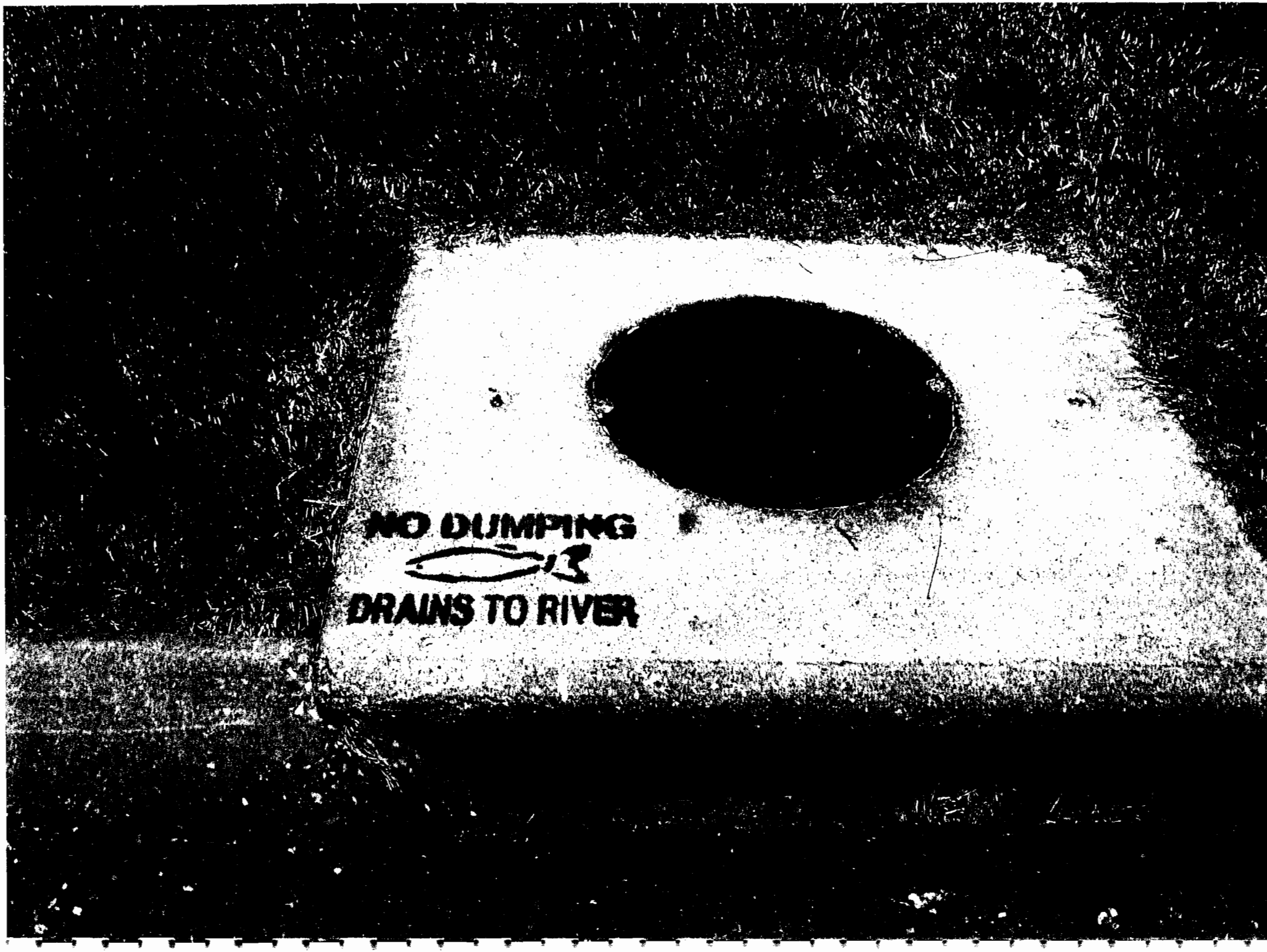
The Stenciling Program has volunteers paint a message on the storm drain inlets that informs the public "No Dumping ..... Drains to River". This will increase people's awareness of the pollution impact of dumping waste in a drain.

The City will provide the supplies for this program to volunteers or volunteer groups. Coordination of the work should be done through the City's Stormwater Coordinator.

The Guidelines and Liability Waiver Form can be viewed and printed from the City website . . . . . www.cityofcapegirardeau.org

Volunteers interested in participating in the program can contact:

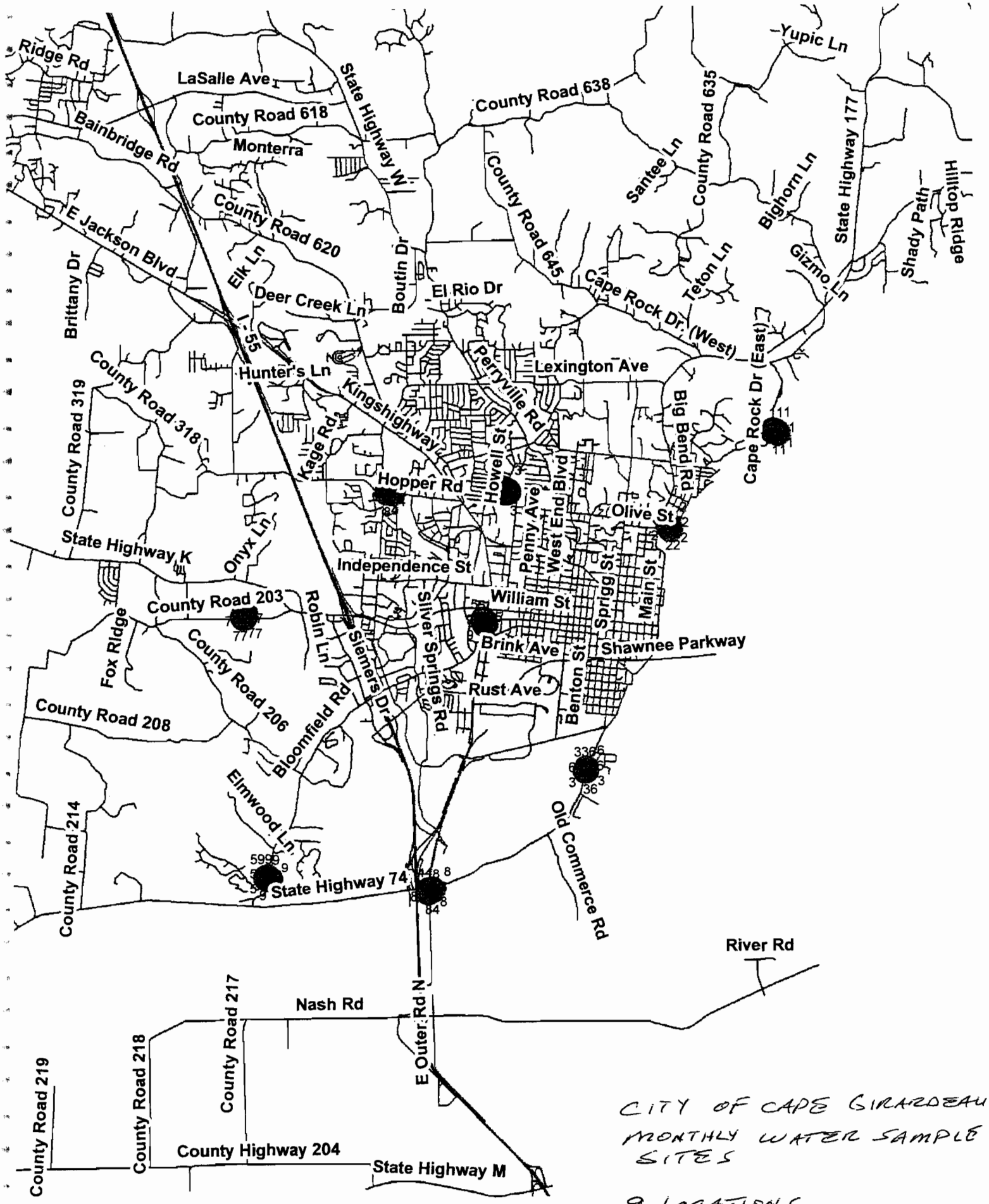
Stan Polivick, Storm Water Coordinator
573-339-6351
spolivick@cityofcapegirardeau.org


NO DUMPING
DRAINS TO RIVER

Appendix 12

IDDE Water Sampling

Example of Monthly Testing Report
Map of Monthly Testing Sites



CITY OF CAPE GIRARDEAU
MONTHLY WATER SAMPLE
SITES

9 LOCATIONS

CENTER FOR ENVIRONMENTAL ANALYSIS

CEA JOB NUMBER: 07-003

SAMPLE LOCATION: 1 Date: 1/28/12

Sample Collector: John Kraemer

Outside Conditions During Sampling: Sunny, 49 ^{0}F with light breeze

Visual and Odor Screening: Clear, but light green in color (algae); Slight organic odor

Conductivity: 0.40	pH: 8.8	Temperature: 4.3 °C

Dissolved Oxygen: 14.22

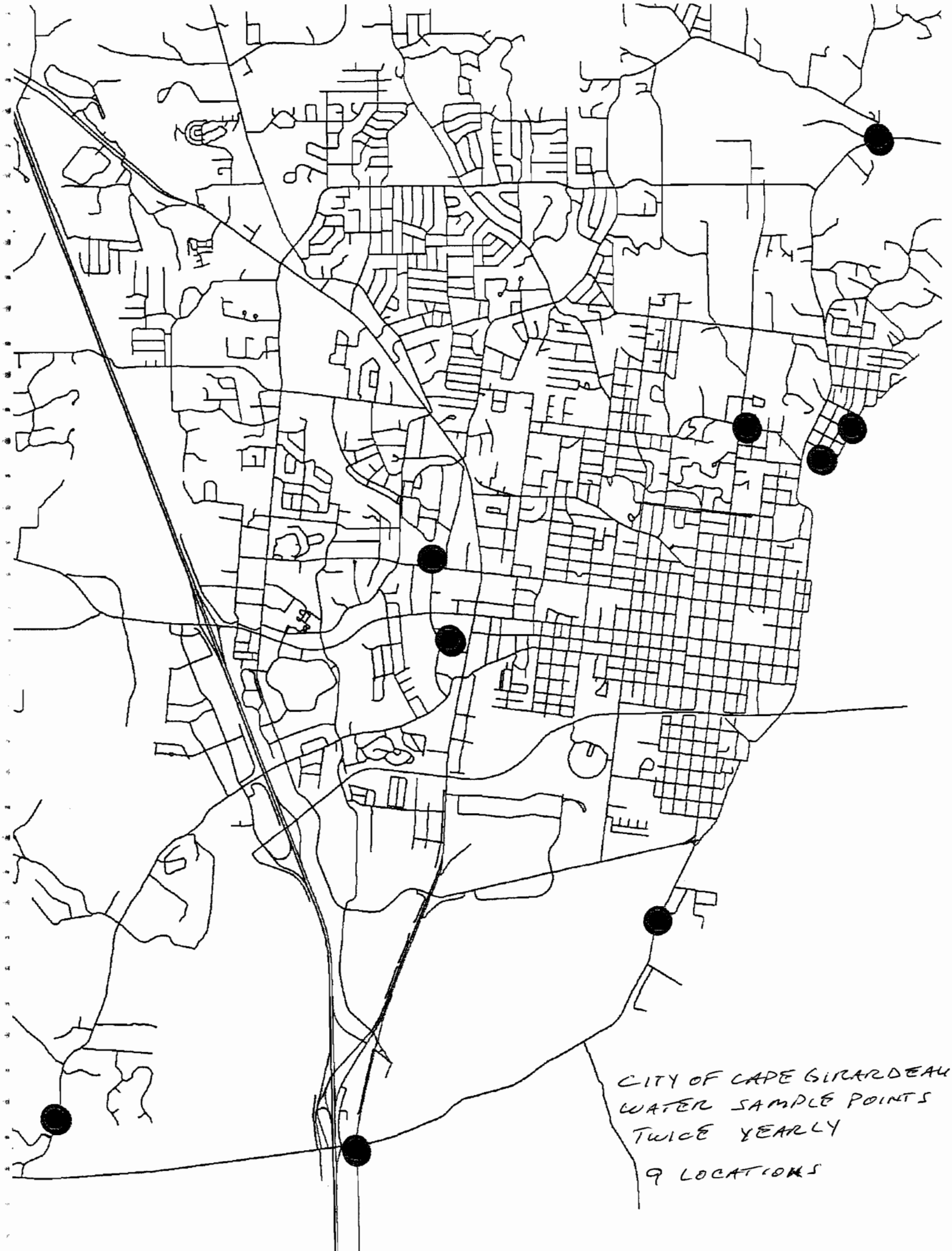
Turbidity: 3.6

Other Observations/Field Notes:

TDS: 270

EXAMPLE OF MONTHLY TESTING

Example of Twice Yearly Testing Report
Map of Twice Yearly Testing Sites


CITY OF CAPE GIRARDEAU
WATER SAMPLE POINTS
TWICE YEARLY
9 LOCATIONS

DETAILED SAMPLE

CENTER FOR ENVIRONMENTAL ANALYSIS

CEA JOB NUMBER: 09-252

SAMPLE LOCATION: 1 Date: 6/7/11

Sample Collector: Sarah Lintner and Danielle Mattingly

Outside Conditions: Sunny and clear; 85° F

Visual and Odor Screening: Dirty with particles; Strong organic odor (like feces)

Conductivity: 0.39	pH: 7.1	Temperature: 26.1 ^{0} C

Dissolved Oxygen: 4.07

Turbidity: 9.43

Other Observations/Field Notes:

TDS: 260

Nitrate as Ammonia: 0.11 mg/L
Color: 0 APHA Platinum Cobalt Units
Detergents: 0.5 ppm
Petri Films: *E. coli*: 0
Other coliforms 380
Total coliforms 380

EXAMPLE OF TWICE YEARLY DETAILED TESTING

Appendix 13

Outfall Reconnaissance Inventory Form

City of Cape Girardeau, Mo
IDDE Program
Outfall Reconnaissance Inventory (ORI)

Section 1 Background Data Date: _____ Time: _____

Watershed / Sub Watershed: _____ Outfall ID: _____

Investigator(s): _____ Form by: _____

Temperature: _____ Rainfall((inches) Last 24 hr _____ Last 48 hr _____ Latitude: _____

GPS Unit: _____ GPS LMK# _____ Longitude: _____

Camera: _____ Photo #'s: _____

Land Use in Drainage Area - check all that apply

☐ Residential	☐ Industrial	☐ Undeveloped
☐ Multi - Family	☐ Commercial	☐ Park / Open Space

Notes: _____

Section 2 Description

Closed Pipe ☐ RCP ☐ CMP ☐ PVC ☐ HDPE ☐ Steel ‖ ☐ Round ☐ Elliptical ☐ Box ‖ ☐ Single ☐ Double ☐ Triple

Diameter / Dimensions _____ ‖ Submerged: Water ☐ no ☐ partially ☐ fully / Sediment ☐ no ☐ partially ☐ fully

Open Drainage ☐ concrete ☐ earthen ☐ rip rap ☐ other _____ ‖ ☐ trapezoid ☐ parabolic ☐ square

Depth _____ Top Width _____ Bottom Width _____

Flow Present? ☐ Yes ☐ No If No skip to Section 5

Flow Description: ☐ Trickle ☐ Moderate ☐ Substantial

Section 3 Quantitative Characterization

Field Data For Flowing Outfalls

Rate of Flow	Result	Unit	Equipment
Method 1			
Volume:		Liter	Bottle
Time to Fill:		Seconds	Stop Watch
Calculated Flow Rate:			

Temperature: _____

pH: _____

Conductivity: _____

Turbidity: _____

Method 2			
Flow Depth	_____ ft, _____ in	Ft & In	Tape Measure
Flow Width	_____ ft, _____ in	Ft & In	Tape Measure
Time of Travel		Seconds	Stop Watch
Calculated Flow Rate:			

Section 4: Physical Indicators for Flowing Outfalls

	Present ?	Description	Severity Index
Odor	☐	☐ Sewage ☐ Sulfide ☐ Oil/ Gas ☐ Rancid/ sour ☐ other _____	☐ Faint-1 ☐ Easily Detected-2 ☐ Strong-3
Color	☐	☐ Clear ☐ Brown ☐ Gray ☐ Yellow ☐ Green ☐ Orange ☐ Red	☐ Faint-1 ☐ Very Visible-2 ☐ Heavy-3
Floatables (Not trash)	☐	☐ Sewage ☐ Suds ☐ Oil Sheen ☐ Other _____	☐ Slight-1 ☐ Moderate-2 ☐ Heavy-3

Section 5: Physical Indicators for Flowing and Non-Flowing Outfalls

Indicator	Present ?	Description	Comments
Outfall Damage	☐	☐ Spalling, Cracking ☐ Peeling paint ☐ Corrosion	
Deposits / Stains	☐	☐ Oily ☐ Flow Line ☐ Paint ☐ other _____	
Abnormal Vegetation	☐	☐ Excessive ☐ Inhibited	
Poor Pool Quality	☐	☐ Odors ☐ Suds ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Algae	
Pipe Benthic Growth	☐	☐ Brown ☐ Orange ☐ Green ☐ other _____	

Section 6 Overall Outfall Characterization For Illicit Discharges

☐ Unlikely ☐ Potential (2 or more indicators, severity < 3) ☐ Suspect (1 or more indicators severity 3) ☐ Obvious

Section 7 Data Collection

Sample for Lab ? ☐ Yes ☐ No

If yes, collected from ? ☐ Flow ☐ Pool

Intermittent flow trap set? ☐ Yes ☐ No Type: ☐ OBM ☐ Caulk Dam

Section 8 Non IDDE Concerns

Notes / Comments _____

_____

_____

Appendix 14

Public Works Fleet SPCC

Tier I Qualified Facility SPCC Plan

This template constitutes the SPCC Plan for the facility, when completed and signed by the owner or operator of a facility that meets the applicability criteria in §112.3(g)(1). This template addresses the requirements of 40 CFR part 112. Maintain a complete copy of the Plan at the facility if the facility is normally attended at least four hours per day, or for a facility attended fewer than four hours per day, at the nearest field office. When making operational changes at a facility that are necessary to comply with the rule requirements, the owner/operator should follow state and local requirements (such as for permitting, design and construction) and obtain professional assistance, as appropriate.

Facility Description

Facility Name: City of Cape Girardeau Public Works Fleet Service Area

Facility Address: 2007 Southern Expressway

City: Cape Girardeau State: Mo ZIP: 63703

County: Cape Girardeau Tel. Number: (573) 339 - 6351

Owner or Operator Name: City of Cape Girardeau Public Works

Owner or Operator Address: 2007 Southern Expressway

City: Cape Girardeau State: MO ZIP: 63703

County: Cape Girardeau Tel. Number: (573) 339 - 6351

I. Self-Certification Statement (§112.6(a)(1))

The owner or operator of a facility certifies that each of the following is true in order to utilize this template to comply with the SPCC requirements:

I Stan Polivick certify that the following is accurate:

1. I am familiar with the applicable requirements of 40 CFR part 112;
2. I have visited and examined the facility;
3. This Plan was prepared in accordance with accepted and sound industry practices and standards;
4. Procedures for required inspections and testing have been established in accordance with industry inspection and testing standards or recommended practices;
5. I will fully implement the Plan;
6. This facility meets the following qualification criteria (under §112.3(g)(1)):
   a. The aggregate aboveground oil storage capacity of the facility is 10,000 U.S. gallons or less; and
   b. The facility has had no single discharge as described in §112.1(b) exceeding 1,000 U.S. gallons and no two discharges as described in §112.1(b) each exceeding 42 U.S. gallons within any twelve month period in the three years prior to the SPCC Plan self-certification date, or since becoming subject to 40 CFR part 112 if the facility has been in operation for less than three years (not including oil discharges as described in §112.1(b) that are the result of natural disasters, acts of war, or terrorism); and
   c. There is no individual oil storage container at the facility with an aboveground capacity greater than 5,000 U.S. gallons.
7. This Plan does not deviate from any requirement of 40 CFR part 112 as allowed by §112.7(a)(2) (environmental equivalence) and §112.7(d) (impracticability of secondary containment) or include any measures pursuant to §112.9(c)(6) for produced water containers and any associated piping;
8. This Plan and individual(s) responsible for implementing this Plan have the full approval of management and I have committed the necessary resources to fully implement this Plan.

I also understand my other obligations relating to the storage of oil at this facility, including, among others:

1. To report any oil discharge to navigable waters or adjoining shorelines to the appropriate authorities. Notification information is included in this Plan.
2. To review and amend this Plan whenever there is a material change at the facility that affects the potential for an oil discharge, and at least once every five years. Reviews and amendments are recorded in an attached log [See Five Year Review Log and Technical Amendment Log in Attachments 1.1 and 1.2.]
3. Optional use of a contingency plan. A contingency plan:
   a. May be used in lieu of secondary containment for qualified oil-filled operational equipment, in accordance with the requirements under §112.7(k), and;
   b. Must be prepared for flowlines and/or intra-facility gathering lines which do not have secondary containment at an oil production facility, and;
   c. Must include an established and documented inspection or monitoring program; must follow the provisions of 40 CFR part 109; and must include a written commitment of manpower, equipment and materials to expeditiously remove any quantity of oil discharged that may be harmful. If applicable, a copy of the contingency plan and any additional documentation will be attached to this Plan as Attachment 2.

I certify that I have satisfied the requirement to prepare and implement a Plan under §112.3 and all of the requirements under §112.6(a). I certify that the information contained in this Plan is true.

Signature Stan Polivick Title: Stormwater Coordinator

Name Stan Polivick Date: 3/23/2012 UPDATE

II. Record of Plan Review and Amendments

Five Year Review (§112.5(b)):

Complete a review and evaluation of this SPCC Plan at least once every five years. As a result of the review, amend this Plan within six months to include more effective prevention and control measures for the facility, if applicable. Implement any SPCC Plan amendment as soon as possible, but no later than six months following Plan amendment. Document completion of the review and evaluation, and complete the Five Year Review Log in Attachment 1.1. If the facility no longer meets Tier I qualified facility eligibility, the owner or operator must revise the Plan to meet Tier II qualified facility requirements, or complete a full PE certified Plan.

Table S-1 Technical Amendments (§§112.5(a), (c) and 112.6(a)(2))	
This SPCC Plan will be amended when there is a change in the facility design, construction, operation, or maintenance that materially affects the potential for a discharge to navigable waters or adjoining shorelines. Examples include adding or removing containers, reconstruction, replacement, or installation of piping systems, changes to secondary containment systems, changes in product stored at this facility, or revisions to standard operating procedures.	☑
Any technical amendments to this Plan will be re-certified in accordance with Section I of this Plan template. *[§112.6(a)(2)]* **[See Technical Amendment Log in Attachment 1.2]**	☑

III. Plan Requirements

1. Oil Storage Containers (§112.7(a)(3)(i)):

Table C-1 Oil Storage Containers and Capacities	
This table includes a complete list of all oil storage containers (aboveground containers[a] and completely buried tanks[b]) with capacity of 55 U.S. gallons or more, unless otherwise exempt from the rule. For mobile/portable containers, an estimated number of containers, types of oil, and anticipated capacities are provided.	☑

Oil Storage Container *(indicate whether aboveground (A) or completely buried (B))*	**Type of Oil**	**Shell Capacity (gallons)**
SEE ATTACHED CHART		

Total Aboveground Storage Capacity [c] 3830 gallons
Total Completely Buried Storage Capacity 0 gallons
Facility Total Oil Storage Capacity 3830 gallons

[a] Aboveground storage containers that must be included when calculating total facility oil storage capacity include: tanks and mobile or portable containers; oil-filled operational equipment (e.g. transformers); other oil-filled equipment, such as flow-through process equipment. Exempt containers that are not included in the capacity calculation include: any container with a storage capacity of less than 55 gallons of oil; containers used exclusively for wastewater treatment; permanently closed containers; motive power containers; hot-mix asphalt containers; heating oil containers used solely at a single-family residence; and pesticide application equipment or related mix containers.

[b] Although the criteria to determine eligibility for qualified facilities focuses on the aboveground oil storage containers at the facility, the completely buried tanks at a qualified facility are still subject to the rule requirements and must be addressed in the template; however, they are not counted toward the qualified facility applicability threshold.

[c] Counts toward qualified facility applicability threshold.

2. Secondary Containment and Oil Spill Control (§§112.6(a)(3)(i) and (ii), 112.7(c) and 112.9(c)(2)):

Table C-2 Secondary Containment and Oil Spill Control	
Appropriate secondary containment and/or diversionary structures or equipment[a] is provided for all oil handling containers, equipment, and transfer areas to prevent a discharge to navigable waters or adjoining shorelines. The entire secondary containment system, including walls and floor, is capable of containing oil and is constructed so that any discharge from a primary containment system, such as a tank or pipe, will not escape the containment system before cleanup occurs.	☑

[a] Use one of the following methods of secondary containment or its equivalent: (1) Dikes, berms, or retaining walls sufficiently impervious to contain oil; (2) Curbing; (3) Culverting, gutters, or other drainage systems; (4) Weirs, booms, or other barriers; (5) Spill diversion ponds; (6) Retention ponds; or (7) Sorbent materials.

City of Cape Girardeau Public Works
SPCC Fleet Service Area
Table G-2 Oil Storge Containers and Capacities

Container ID	Above Ground / Buried			Type of Oil	Shell Capacity (gal)
EO-1	A	inside bldg	mezz	new engine oil	300
EO-5	A	inside bldg	mezz	new engine oil	300
HF-1	A	inside bldg	mezz	new hydraulic fluid	300
ATF-1	A	inside bldg	mezz	new transmission fluid	55
WO-1	A	Inside bldg		waste oil	500
WO-2	A	outside bldg		waste oil	500
WO-3	A	Inside bldg		waste oil	55
WO-4	A	Inside bldg		waste oil	55
WO-5	A	Inside bldg		waste oil	55
AF-1	A	Inside bldg		new antifreeze	55
AF-2	A	Inside bldg		new antifreeze	55
UAF-1	A	Inside bldg		used antifreeze	55
HF-2	A	Inside bldg		new hydraulic fluid	55
HF-3	A	Inside bldg		new hydraulic fluid	55
ATF-2	A	Inside bldg		new transmission fluid	55
EO-2	A	Inside bldg		new engine oil	55
HF-4	A	Inside bldg		new hydraulic fluid	55
DFC-1	A	Inside bldg		new diesel fuel conditioner	55
EO-3	A	Inside bldg		new engine oil	55
EO-4	A	Inside bldg		new engine oil	55
AF-3	A	Inside bldg		new antifreeze	55
AF-4	A	Inside bldg		new antifreeze	55
Gen-1	A	outside bldg	Dbl Wall	diesel fuel for generator	500
ED-1	A	Inside bldg		empty drum	55
ED-2	A	Inside bldg		empty drum	55
ED-3	A	Inside bldg		empty drum	55
ED-4	A	Inside bldg		empty drum	55
ED-5	A	Inside bldg		empty drum	55
ED-6	A	Inside bldg		empty drum	55
ED-7	A	Inside bldg		empty drum	55
ED-8	A	Inside bldg		empty drum	55
ED-9	A	Inside bldg		empty drum	55

Total Aboveground Storage Capacity	3830
Total Buired Storage Capacity	0
Facility total Oil Storage Capacity	3830

Ref: 40 CFR 112.7(a)(3)(i)

Table G-4 below identifies the tanks and containers at the facility with the potential for an oil discharge; the mode of failure; the flow direction and potential quantity of the discharge; and the secondary containment method and containment capacity that is provided.

Table G-4 Containers with Potential for an Oil Discharge

Area	Type of failure (discharge scenario)	Potential discharge volume (gallons)	Direction of flow for uncontained discharge	Secondary containment method[a]	Secondary containment capacity (gallons)
Bulk Storage Containers and Mobile/Portable Containers[b]					
SEE ATTACHED CHART					
Oil-filled Operational Equipment (e.g., hydraulic equipment, transformers)[c]					
Piping, Valves, etc.					
Product Transfer Areas (location where oil is loaded to or from a container, pipe or other piece of equipment.)					
Other Oil-Handling Areas or Oil-Filled Equipment (e.g. flow-through process vessels at an oil production facility)					

[a] Use one of the following methods of secondary containment or its equivalent: (1) Dikes, berms, or retaining walls sufficiently impervious to contain oil; (2) Curbing; (3) Culverting, gutters, or other drainage systems; (4) Weirs, booms, or other barriers; (5) Spill diversion ponds; (6) Retention ponds; or (7) Sorbent materials.

[b] For storage tanks and bulk storage containers, the secondary containment capacity must be at least the capacity of the largest container plus additional capacity to contain rainfall or other precipitation.

[c] For oil-filled operational equipment: Document in the table above if alternative measures to secondary containment (as described in §112.7(k)) are implemented at the facility.

City of Cape Girardeau Public Works
SPCC Fleet Service Area
Table G-4 Oil Storge Containers and Capacities

Container ID	Shell Capacity (gal)	Type of Failure	Potential Discharge Vol (gal)	Direction of Flow	Secondary Containment Method	Secondary Containment Volume (gal)
EO-1	300	Rupture or leakage	300	inside building	Retaining wall	368
EO-5	300	Rupture or leakage	300	inside building	Retaining wall	368
HF-1	300	Rupture or leakage	300	inside building	Retaining wall	368
ATF-1	55	Rupture or leakage	55	inside building	Berm	400
WO-1	500	Rupture or leakage	500	inside building	Berm	748
WO-2	500	Rupture or leakage	500	south then west	Retaining wall	1050
WO-3	55	Rupture or leakage	55	inside building	spill pallet	66
WO-4	55	Rupture or leakage	55	inside building	spill pallet	66
WO-5	55	Rupture or leakage	55	inside building	spill pallet	66
AF-1	55	Rupture or leakage	55	inside building	spill pallet	66
AF-2	55	Rupture or leakage	55	inside building	spill pallet	66
UAF-1	55	Rupture or leakage	55	inside building	spill pallet	66
HF-2	55	Rupture or leakage	55	inside building	spill pallet	66
HF-3	55	Rupture or leakage	55	inside building	spill pallet	66
ATF-2	55	Rupture or leakage	55	inside building	spill pallet	66
EO-2	55	Rupture or leakage	55	inside building	spill pallet	66
HF-4	55	Rupture or leakage	55	inside building	spill pallet	66
DFC-1	55	Rupture or leakage	55	inside building	spill pallet	66
EO-3	55	Rupture or leakage	55	inside building	spill pallet	66
EO-4	55	Rupture or leakage	55	inside building	spill pallet	66
AF-3	55	Rupture or leakage	55	inside building	spill pallet	66
AF-4	55	Rupture or leakage	55	inside building	spill pallet	66
Gen-1	500	Rupture or leakage	500	east thru pipes	Double wall	500
ED-1	55	Rupture or leakage	55	inside building		0
ED-2	55	Rupture or leakage	55	inside building		0
ED-3	55	Rupture or leakage	55	inside building		0
ED-4	55	Rupture or leakage	55	inside building		0
ED-5	55	Rupture or leakage	55	inside building		0
ED-6	55	Rupture or leakage	55	inside building		0
ED-7	55	Rupture or leakage	55	inside building		0
ED-8	55	Rupture or leakage	55	inside building		0
ED-9	55	Rupture or leakage	55	inside building		0

Ref: 40 CFR 112.6(a)(3)(i) and (ii), 112.7(c) and 112.9(c)(2)):

3. Inspections, Testing, Recordkeeping and Personnel Training (§§112.7(e) and (f), 112.8(c)(6) and (d)(4), 112.9(c)(3), 112.12(c)(6) and (d)(4)):

Table G-3 Inspections, Testing, Recordkeeping and Personnel Training	
An inspection and/or testing program is implemented for all aboveground bulk storage containers and piping at this facility. *[§§112.8(c)(6) and (d)(4), 112.9(c)(3), 112.12(c)(6) and (d)(4)]*	☑
The following is a description of the inspection and/or testing program (e.g. reference to industry standard utilized, scope, frequency, method of inspection or test, and person conducting the inspection) for all aboveground bulk storage containers and piping at this facility: Facility inspections are conducted monthly and records of these inspections are documented and signed by the inspector. During the inspections all tanks, drums, and piping are visually inspected. The checklist used for these inspections is Attachment 5. Inspection and training records are retained for at least three years. Tank integrity testing will be conducted every 5 years by the Fleet Maintenance Coordinator with a hydrostatic test. Informal visual inspections will be performed weekly to observe any damages to the tanks, drums, or piping, and to check for stains that may indicate a leak. Excess water in exposed containment areas will be checked for oil sheen before being discharged. All discharges from secondary contianment will be recorded on the form in Attachment 4 ,Table G-20.	
Inspections, tests, and records are conducted in accordance with written procedures developed for the facility. Records of inspections and tests kept under usual and customary business practices will suffice for purposes of this paragraph. *[§112.7(e)]*	☑
A record of the inspections and tests are kept at the facility or with the SPCC Plan for a period of three years. *[§112.7(e)]* **[See Inspection Log and Schedule in Attachment 3.1]**	☑
Inspections and tests are signed by the appropriate supervisor or inspector. *[§112.7(e)]*	☑
Personnel, training, and discharge prevention procedures [§112.7(f)]	
Oil-handling personnel are trained in the operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules, and regulations; general facility operations; and, the contents of the facility SPCC Plan. *[§112.7(f)]*	☑
A person who reports to facility management is designated and accountable for discharge prevention. *[§112.7(f)]* Name/Title: Mike Schott / Fleet Maintenance Coordinator	☑
Discharge prevention briefings are conducted for oil-handling personnel annually to assure adequate understanding of the SPCC Plan for that facility. Such briefings highlight and describe past reportable discharges or failures, malfunctioning components, and any recently developed precautionary measures. *[§112.7(f)]* **[See Oil-handling Personnel Training and Briefing Log in Attachment 3.4]**	☑

4. Security (excluding oil production facilities) §112.7(g):

Table G-6 Implementation and Description of Security Measures	
Security measures are implemented at this facility to prevent unauthorized access to oil handling, processing, and storage area.	☑

The following is a description of how you secure and control access to the oil handling, processing and storage areas; secure master flow and drain valves; prevent unauthorized access to starter controls on oil pumps; secure out-of-service and loading/unloading connections of oil pipelines; address the appropriateness of security lighting to both prevent acts of vandalism and assist in the discovery of oil discharges:

All valves to containment areas are to be normally closed.
All containers are in or adjacent to the main Public Works building. These are in view of all fleet maintenance staff during the business day. All containers but one are located inside the Fleet maintenance area such that they are not accessible during non-business hours. The one outside container has a lock on the inlet and outlet.
All piping related to the oil containment and handling is located inside the building and thus is not accessible to the unauthorized personnel.

5. Emergency Procedures and Notifications (§112.7(a)(3)(iv) and 112.7(a)(5)):

Table G-7 Description of Emergency Procedures and Notifications

The following is a description of the immediate actions to be taken by facility personnel in the event of a discharge to navigable waters or adjoining shorelines *[§112.7(a)(3)(iv) and 112.7(a)(5)]*:

See Attached Table G-7

Table G-7
Emergency Procedures and Notifications

Minor Discharge

Defined

Quantity is 10 gal or less
Discharged material is easily and immediately controlled and stopped
Discharged material is localized near the source
Discharged material will not reach water or waterway
Small risk to human helath or safety
Small risk of fire or explosion

Action

Immideately inform Shop Foreman and Public Works Director or his assigned staff member
Contain the discharge with absorbent materials and properly dispose of the spent materials

Major Discharge

Defined

Quantilty of material large enough to spread beyond the discharge area
Discharged material enters water or waterway or entry is imminent
Discharge requires special equipment or training to clean up
Discharge poses risk to human health or safety
Discharge poses risk of fire or explosion

Action

Immideately inform Shop Foreman and Public Works Director or his assigned staff member
Evacuate workers from area
Notify Emergency Contacts List
Notify Nationla Response Center (1-800-424-8802) and Missouri DNR (1-573-634-2436)
Record calls to NRC and MODNR on the Spill Notificatino Form
Begin clean up effots in accordance with guidance from agencies

Ref: 40 CFR 112.7(a) (3)(iv) and 112.7(a)(5)

6. Contact List (§112.7(a)(3)(vi)):

Table 6-a Contact List	
Contact Organization / Person	**Telephone Number**
National Response Center (NRC)	1-800-424-8802
Cleanup Contractor(s)	Safety Kleen 573-335-1616 Kidd Oil 573-335-8160 Interrail 573-334-9437
Key Facility Personnel	
Designated Person Accountable for Discharge Prevention: Mike Schott, Fleet Maintenance Coordinator	Office: 573-339-6351
	Emergency: 573-450-6632
Stan Polivick, Stormwater Coordinator	Office: 573-339-6351
	Emergency: 573-838-8073
Steve Cook, Asst Public Works Director	Office: 573-339-6351
	Emergency: 573-579-0510
Tim Gramling, Public Works Director	Office: 573-339-6351
	Emergency: 573-225-6889
State Oil Pollution Control Agencies MO DNR Environmental emergency Response	573-634-2436
Other State, Federal, and Local Agencies	
Local Fire Department 573-339-6330	
Local Police Department 537-335-6621	
Hospital	
Other Contact References (e.g., downstream water intakes or neighboring facilities)	

7. NRC Notification Procedure (§112.7(a)(4) and (a)(5)):

Tier I: 7. NRC Notification Procedure	
In the event of a discharge of oil to navigable waters or adjoining shorelines, the following information identified in Attachment 4 will be provided to the National Response Center immediately following identification of a discharge to navigable waters or adjoining shorelines **[See Discharge Notification Form in Attachment 4]**: *[§112.7(a)(4)]*	☑

- The exact address or location and phone number of the facility;
- Date and time of the discharge;
- Type of material discharged;
- Estimate of the total quantity discharged;
- Estimate of the quantity discharged to navigable waters;
- Source of the discharge;
- Description of all affected media;
- Cause of the discharge;
- Any damages or injuries caused by the discharge;
- Actions being used to stop, remove, and mitigate the effects of the discharge;
- Whether an evacuation may be needed; and
- Names of individuals and/or organizations who have also been contacted.

8. SPCC Spill Reporting Requirements (Report within 60 days) (§112.4):

Submit information to the EPA Regional Administrator (RA) and the appropriate agency or agencies in charge of oil pollution control activities in the State in which the facility is located within 60 days from one of the following discharge events:

A single discharge of more than 1,000 U.S. gallons of oil to navigable waters or adjoining shorelines or
Two discharges to navigable waters or adjoining shorelines each more than 42 U.S. gallons of oil occurring within any twelve month period

You must submit the following information to the RA:

(1) Name of the facility;
(2) Your name;
(3) Location of the facility;
(4) Maximum storage or handling capacity of the facility and normal daily throughput;
(5) Corrective action and countermeasures you have taken, including a description of equipment repairs and replacements;
(6) An adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary;
(7) The cause of the reportable discharge, including a failure analysis of the system or subsystem in which the failure occurred; and
(8) Additional preventive measures you have taken or contemplated to minimize the possibility of recurrence
(9) Such other information as the Regional Administrator may reasonably require pertinent to the Plan or discharge

* * * * *

NOTE: Complete one of the following sections (A, B or C) as appropriate for the facility type.

[redacted]

The owner or operator must meet the general rule requirements as well as requirements under this section. Note that not all provisions may be applicable to all owners/operators. For example, a facility may not maintain completely buried metallic storage tanks installed after January 10, 1974, and thus would not have to abide by requirements in §§112.8(c)(4) and 112.12(c)(4), listed below. **In cases where a provision is not applicable, write "N/A".**

[redacted]		
Drainage from diked storage areas is restrained by valves to prevent a discharge into the drainage system or facility effluent treatment system, except where facility systems are designed to control such discharge. Diked areas may be emptied by pumps or ejectors that must be manually activated after inspecting the condition of the accumulation to ensure no oil will be discharged. *[§§112.8(b)(1) and 112.12(b)(1)]*	☑	☐
Valves of manual, open-and-closed design are used for the drainage of diked areas. *[§§112.8(b)(2) and 112.12(b)(2)]*	☑	☐
The containers at the facility are compatible with materials stored and conditions of storage such as pressure and temperature. *[§§112.8(c)(1) and 112.12(c)(1)]*	☑	☐
Secondary containment for the bulk storage containers (including mobile/portable oil storage containers) holds the capacity of the largest container plus additional capacity to contain precipitation. Mobile or portable oil storage containers are positioned to prevent a discharge as described in §112.1(b). *[§112.6(a)(3)(ii)]*	☑	☐
If uncontaminated rainwater from diked areas drains into a storm drain or open watercourse the following procedures will be implemented at the facility: *[§§112.8(c)(3) and 112.12(c)(3)]*		
• Bypass valve is normally sealed closed	☑	☐
• Retained rainwater is inspected to ensure that its presence will not cause a discharge to navigable waters or adjoining shorelines	☑	☐
• Bypass valve is opened and resealed under responsible supervision	☑	☐
• Adequate records of drainage are kept **[See Dike Drainage Log in Attachment 3.3]**	☑	☐
For completely buried metallic tanks installed on or after January 10, 1974 at this facility *[§§112.8(c)(4) and 112.12(c)(4)]*:		
• Tanks have corrosion protection with coatings or cathodic protection compatible with local soil conditions.	☐	☑
• Regular leak testing is conducted.	☐	☑
For partially buried or bunkered metallic tanks *[§112.8(c)(5) and §112.12(c)(5)]*:		
• Tanks have corrosion protection with coatings or cathodic protection compatible with local soil conditions.	☐	☑
Each aboveground bulk container is tested or inspected for integrity on a regular schedule and whenever material repairs are made. Scope and frequency of the inspections and inspector qualifications are in accordance with industry standards. Container supports and foundations are regularly inspected. **[See Inspection Log and Schedule and Bulk Storage Container Inspection Schedule in Attachments 3.1 and 3.2]** *[§112.8(c)(6) and §112.12(c)(6)(i)]*	☑	☐
Outsides of bulk storage containers are frequently inspected for signs of deterioration, discharges, or accumulation of oil inside diked areas. **[See Inspection Log and Schedule in Attachment 3.1]** *[§§112.8(c)(6) and 112.12(c)(6)]*	☑	☐
For bulk storage containers that are subject to 21 CFR part 110 which are shop-fabricated, constructed of austenitic stainless steel, elevated and have no external insulation, formal visual inspection is conducted on a regular schedule. Appropriate qualifications for personnel performing tests and inspections are documented. **[See Inspection Log and Schedule and Bulk Storage Container Inspection Schedule in Attachments 3.1 and 3.2]** *[§112.12(c)(6)(ii)]*	☐	☑

Table 3-10 General Rule Requirements for Onshore Facilities		N/A
Each container is provided with a system or documented procedure to prevent overfills for the container. Describe: Each bulk tank is fitted with a sight tube. This is checked before any fluid is placed in the tank to be certian there is capacity available for the added fluid.	☑	☐
Liquid level sensing devices are regularly tested to ensure proper operation **[See Inspection Log and Schedule in Attachment 3.1]**. *[§112.6(a)(3)(iii)]*	☐	☑
Visible discharges which result in a loss of oil from the container, including but not limited to seams, gaskets, piping, pumps, valves, rivets, and bolts are promptly corrected and oil in diked areas is promptly removed. *[§§112.8(c)(10) and 112.12(c)(10)]*	☑	☐
Aboveground valves, piping, and appurtenances such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces are inspected regularly. **[See Inspection Log and Schedule in Attachment 3.1]** *[§§112.8(d)(4) and 112.12(d)(4)]*	☑	☐
Integrity and leak testing are conducted on buried piping at the time of installation, modification, construction, relocation, or replacement. **[See Inspection Log and Schedule in Attachment 3.1]** *[§§112.8(d)(4) and 112.12(d)(4)]*	☐	☑

B. Onshore Oil Production Facilities (excluding drilling and workover facilities) §112.9(b), (c), and (d)

The owner or operator must meet the general rule requirements as well as the requirements under this section. Note that not all provisions may be applicable to all owners/operators. **In cases where a provision is not applicable, write "N/A".**

Table B-1 General Rule Requirements for Onshore Oil Production Facilities		N/A
At tank batteries, separation and treating areas, drainage is closed and sealed except when draining uncontaminated rainwater. Accumulated oil on the rainwater is returned to storage or disposed of in accordance with legally approved methods. *[§112.9(b)(1)]*	☐	☐
Prior to drainage, diked areas are inspected and *[§112.9(b)(1)]*: • Retained rainwater is inspected to ensure that its presence will not cause a discharge to navigable waters • Bypass valve is opened and resealed under responsible supervision • Adequate records of drainage are kept **[See Dike Drainage Log in Attachment 3.3]**	☐ ☐ ☐	☐ ☐ ☐
Field drainage systems and oil traps, sumps, or skimmers are inspected at regularly scheduled intervals for oil, and accumulations of oil are promptly removed **[See Inspection Log and Schedule in Attachment 3.1]** *[§112.9(b)(2)]*	☐	☐
The containers used at this facility are compatible with materials stored and conditions of storage. *[§112.9(c)(1)]*	☐	☐
All tank battery, separation, and treating facility installations (except for flow-through process vessels) are constructed with a capacity to hold the largest single container plus additional capacity to contain rainfall. Drainage from undiked areas is safely confined in a catchment basin or holding pond. *[§112.9(c)(2)]*	☐	☐
Except for flow-through process vessels, containers that are on or above the surface of the ground, including foundations and supports, are visually inspected for deterioration and maintenance needs on a regular schedule. **[See Inspection Log and Schedule in Attachment 3.1]** *[§112.9(c)(3)]*	☐	☐
New and old tank batteries at this facility are engineered/updated in accordance with good engineering practices to prevent discharges including at least one of the following: i. adequate container capacity to prevent overfill if regular pumping/gauging is delayed; ii. overflow equalizing lines between containers so that a full container can overflow to an adjacent container; iii. vacuum protection to prevent container collapse; or iv. high level sensors to generate and transmit an alarm to the computer where the facility is subject to a computer production control system. *[§112.9(c)(4)]*	☐	☐
Flow-through process vessels and associated components are: • Are constructed with a capacity to hold the largest single container plus additional capacity to contain rainfall. Drainage from undiked areas is safely confined in a catchment basin or holding pond; *[§112.9(c)(2)]* and • That are on or above the surface of the ground, including foundations and supports, are visually inspected for deterioration and maintenance needs on a regular schedule. **[See Inspection Log and Schedule in Attachment 3.1]** *[§112.9(c)(3)]* *Or* • Visually inspected and/or tested periodically and on a regular schedule for leaks, corrosion, or other conditions that could lead to a discharge to navigable waters; and • Corrective action or repairs are applied to flow-through process vessels and any associated components as indicated by regularly scheduled visual inspections, tests, or evidence of an oil discharge; and • Any accumulations of oil discharges associated with flow-through process vessels are promptly removed; and • Flow-through process vessels are provided with a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation within six months of a discharge from flow-through process vessels of more than 1,000 U.S. gallons of oil in a single discharge as described in §112.1(b), or a discharge more than 42 U.S. gallons of oil in each of two discharges as described in §112.1(b) within any twelve month period. *[§112.9(c)(5)]* *(Leave blank until such time that this provision is applicable.)*	☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐ ☐

Table G-11 General Rule Requirements for Onshore Oil Production Facilities		N/A
All aboveground valves and piping associated with transfer operations are inspected periodically and upon a regular schedule. The general condition of flange joints, valve glands and bodies, drip pans, pipe supports, pumping well polish rod stuffing boxes, bleeder and gauge valves, and other such items are included in the inspection. **[See Inspection Log and Schedule in Attachment 3.1]** *[§112.9(d)(1)]*	☐	☐
An oil spill contingency plan and written commitment of resources are provided for flowlines and intra-facility gathering lines **[See Oil Spill Contingency Plan and Checklist in Attachment 2 and Inspection Log and Schedule in Attachment 3.1]** *[§112.9(d)(3)]*	☐	☐
or Appropriate secondary containment and/or diversionary structures or equipment is provided for flowlines and intra-facility gathering lines to prevent a discharge to navigable waters or adjoining shorelines. The entire secondary containment system, including walls and floor, is capable of containing oil and is constructed so that any discharge from the pipe, will not escape the containment system before cleanup occurs.	☐	☐
A flowline/intra-facility gathering line maintenance program to prevent discharges from each flowline has been established at this facility. The maintenance program addresses each of the following:	☐	☐
• Flowlines and intra-facility gathering lines and associated valves and equipment are compatible with the type of production fluids, their potential corrosivity, volume, and pressure, and other conditions expected in the operational environment;	☐	☐
• Flowlines, intra-facility gathering lines and associated appurtenances are visually inspected and/or tested on a periodic and regular schedule for leaks, oil discharges, corrosion, or other conditions that could lead to a discharge as described in §112.1(b). The frequency and type of testing allows for the implementation of a contingency plan as described under part 109 of this chapter.	☐	☐
• Corrective action and repairs to any flowlines and intra-facility gathering lines and associated appurtenances as indicated by regularly scheduled visual inspections, tests, or evidence of a discharge.	☐	☐
• Accumulations of oil discharges associated with flowlines, intra-facility gathering lines, and associated appurtenances are promptly removed. *[§112.9(d)(4)]*	☐	☐
The following is a description of the flowline/intra-facility gathering line maintenance program implemented at this facility:		

C. Onshore Oil Drilling and Workover Facilities (§112.10(b), (c) and (d)):

The owner or operator must meet the general rule requirements as well as the requirements under this section.

Table G-12 General Rule Requirements for Onshore Oil Drilling and Workover Facilities	
Mobile drilling or worker equipment is positioned or located to prevent discharge as described in §112.1(b). *[§112.10(b)]*	☐
Catchment basins or diversion structures are provided to intercept and contain discharges of fuel, crude oil, or oily drilling fluids. *[§112.10(c)]*	☐
A blowout prevention (BOP) assembly and well control system was installed before drilling below any casing string or during workover operations. *[§112.10(d)]*	☐
The BOP assembly and well control system is capable of controlling any well-head pressure that may be encountered while the BOP assembly and well control system are on the well. *[§112.10(d)]*	☐

ATTACHMENT 1 – Five Year Review and Technical Amendment Logs

I have completed a review and evaluation of the SPCC Plan for this facility, and will/will not amend this Plan as a result.

Review Date	Plan Amendment		Name and signature of person authorized to review this Plan
	Will Amend	Will Not Amend	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	
	☐	☐	

Any technical amendments to this Plan will be re-certified in accordance with Section I of this Plan template.

Review Date	Description of Technical Amendment	Name and signature of person certifying this technical amendment

An oil spill contingency plan and written commitment of resources is required for:

- Flowlines and intra-facility gathering lines at oil production facilities and
- Qualified oil-filled operational equipment which has no secondary containment.

An oil spill contingency plan meeting the provisions of 40 CFR part 109, as described below, and a written commitment of manpower, equipment and materials required to expeditiously control and remove any quantity of oil discharged that may be harmful is attached to this Plan.	☐

Complete the checklist below to verify that the necessary operations outlined in 40 CFR part 109 - Criteria for State, Local and Regional Oil Removal Contingency Plans - have been included.

(a) Definition of the authorities, responsibilities and duties of all persons, organizations or agencies which are to be involved in planning or directing oil removal operations.	☐
(b) Establishment of notification procedures for the purpose of early detection and timely notification of an oil discharge including:	
(1) The identification of critical water use areas to facilitate the reporting of and response to oil discharges.	☐
(2) A current list of names, telephone numbers and addresses of the responsible persons (with alternates) and organizations to be notified when an oil discharge is discovered.	☐
(3) Provisions for access to a reliable communications system for timely notification of an oil discharge, and the capability of interconnection with the communications systems established under related oil removal contingency plans, particularly State and National plans (e.g., NCP).	☐
(4) An established, prearranged procedure for requesting assistance during a major disaster or when the situation exceeds the response capability of the State, local or regional authority.	☐
(c) Provisions to assure that full resource capability is known and can be committed during an oil discharge situation including:	
(1) The identification and inventory of applicable equipment, materials and supplies which are available locally and regionally.	☐
(2) An estimate of the equipment, materials and supplies which would be required to remove the maximum oil discharge to be anticipated.	☐
(3) Development of agreements and arrangements in advance of an oil discharge for the acquisition of equipment, materials and supplies to be used in responding to such a discharge.	☐
(d) Provisions for well defined and specific actions to be taken after discovery and notification of an oil discharge including:	
(1) Specification of an oil discharge response operating team consisting of trained, prepared and available operating personnel.	☐
(2) Predesignation of a properly qualified oil discharge response coordinator who is charged with the responsibility and delegated commensurate authority for directing and coordinating response operations and who knows how to request assistance from Federal authorities operating under existing national and regional contingency plans.	☐
(3) A preplanned location for an oil discharge response operations center and a reliable communications system for directing the coordinated overall response operations.	☐
(4) Provisions for varying degrees of response effort depending on the severity of the oil discharge.	☐
(5) Specification of the order of priority in which the various water uses are to be protected where more than one water use may be adversely affected as a result of an oil discharge and where response operations may not be adequate to protect all uses.	☐
(6) Specific and well defined procedures to facilitate recovery of damages and enforcement measures as provided for by State and local statutes and ordinances.	☐

[a] The contingency plan must be consistent with all applicable state and local plans, Area Contingency Plans, and the National Contingency Plan (NCP)

ATTACHMENT 3 – Inspections, Dike Drainage and Personnel Training Logs

[redacted]

[redacted]

Date of Inspection	Container / Piping / Equipment	Describe Scope (or cite Industry Standard)	Observations	Name/ Signature of Inspector	Records maintained separately [a]
					☐
					☐
					☐
					☐
					☐

[a] Indicate in the table above if records of facility inspections are maintained separately at this facility.

To comply with integrity inspection requirement for bulk storage containers, inspect/test each shop-built aboveground bulk storage container on a regular schedule in accordance with a recognized container inspection standard based on the minimum requirements in the following table.

Container Size and Design Specification	Inspection requirement
Portable containers (including drums, totes, and intermodal bulk containers (IBC))	Visually inspect monthly for signs of deterioration, discharges or accumulation of oil inside diked areas
55 to 1,100 gallons with sized secondary containment 1,101 to 5,000 gallons with sized secondary containment and a means of leak detection[a]	Visually inspect monthly for signs of deterioration, discharges or accumulation of oil inside diked areas plus any annual inspection elements per industry inspection standards
1,101 to 5,000 gallons with sized secondary containment and no method of leak detection[a]	Visually inspect monthly for signs of deterioration, discharges or accumulation of oil inside diked areas, plus any annual inspection elements and other specific integrity tests that may be required per industry inspection standards

[a] Examples of leak detection include, but are not limited to, double-walled tanks and elevated containers where a leak can be visually identified.

Date	Bypass valve sealed closed	Rainwater inspected to be sure no oil (or sheen) is visible	Open bypass valve and reseal it following drainage	Drainage activity supervised	Observations	Signature of Inspector
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		
	☐	☐	☐	☐		

Date	Description / Scope	Attendees

In the event of a discharge of oil to navigable waters or adjoining shorelines, the following information will be provided to the National Response Center **[also see the notification information provided in Section 7 of the Plan]**:

Discharge/Discovery Date		Time	
Facility Name			
Facility Location (Address/Lat-Long/Section Township Range)			
Name of reporting individual		Telephone #	
Type of material discharged		Estimated total quantity discharged	Gallons/Barrels
Source of the discharge		Media affected	☐ Soil ☐ Water (specify) ☐ Other (specify)
Actions taken			
Damage or injuries	☐ No ☐ Yes (specify)	Evacuation needed?	☐ No ☐ Yes (specify)
Organizations and individuals contacted	☐ National Response Center 800-424-8802 Time ☐ Cleanup contractor (Specify) Time ☐ Facility personnel (Specify) Time ☐ State Agency (Specify) Time ☐ Other (Specify) Time		

Attachment 5

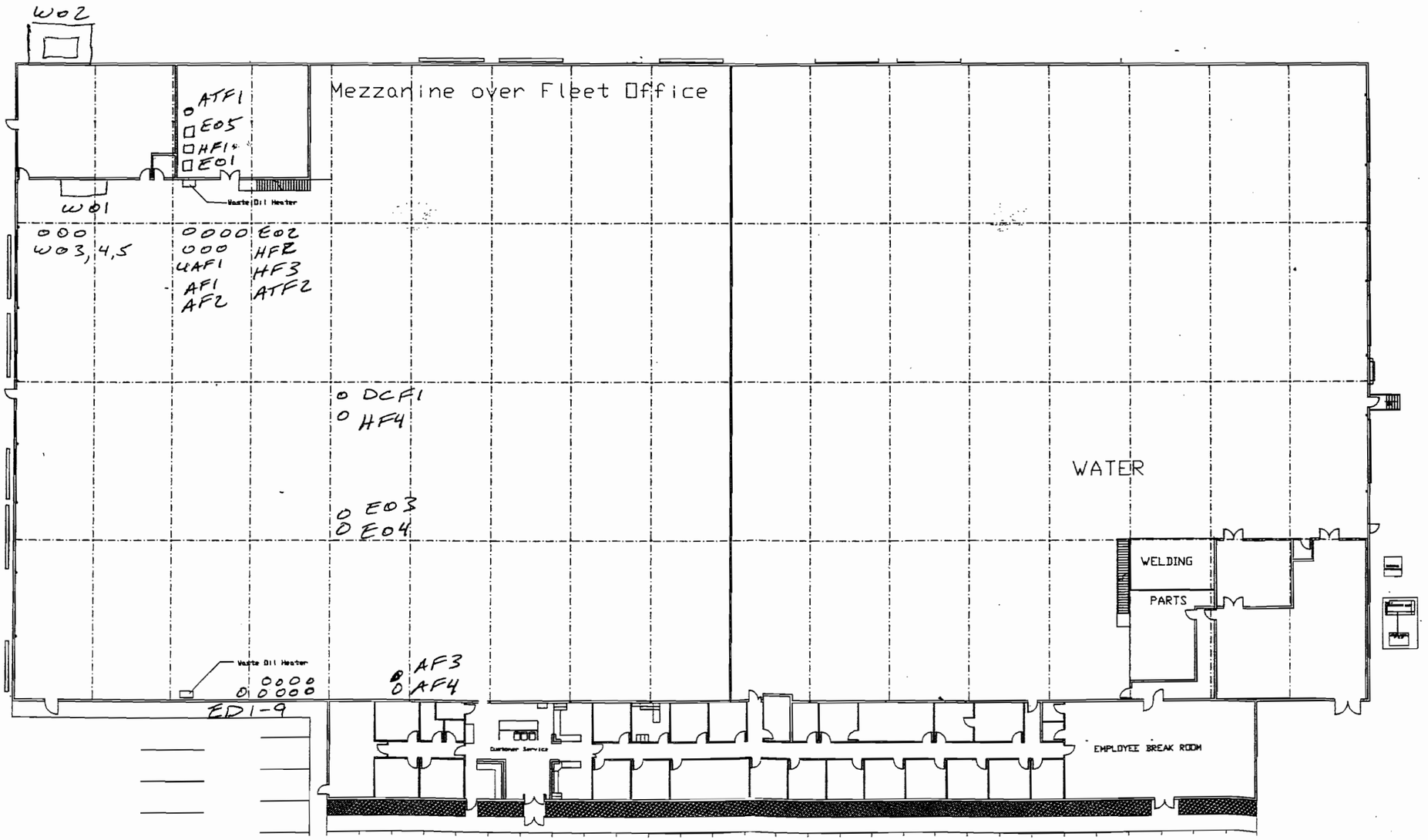
City of Cape Girardeau Public Works
SPCC Fleet Service Area
Facility Inspection Check List

Container	Empty Y / N	Leakage Y/N	Comments
EO-1			
EO-5			
HF-1			
ATF-1			
WO-1			
WO-2			
WO-3			
WO-4			
WO-5			
AF-1			
AF-2			
UAF-1			
HF-2			
HF-3			
ATF-2			
EO-2			
HF-4			
DFC-1			
EO-3			
EO-4			
AF-3			
AF-4			
Gen-1			

Inspector _____

Date _____

Site Map
Fleet Maintenance Area
2007 SOUTHERN EXPRESSWAY



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3-23-12

Appendix 15

Fleet Maintenance- Standard Operating Procedures

STANDARD OPERATING PROCEDURES FOR POLLUTION PREVENTION

Table of Contents

Standard Operations Procedures Binder 1
Accidents & Injuries 2
Material Safety Data Sheets 2
Fluid Storage 2
Spill Response 3
Used Oil 3
Used Anti-Freeze 3
Used Tires 4
Battery Disposal 4
Salt & Ice Control Products 4
Spraying Operations 4

Standard Operations Procedures Binder

The Standard Operating Procedures (SOP's) will be kept in a binder clearly marked and available to the workers in the work area. Each Division will have an SOP binder with the general and site specific information for that work area. SOP's will be updated as necessary for each area. Each Division employee is to be aware of the location of the SOP binder, the organization of the information in it, and the general content.

Accidents & Injuries

Accidents and injuries are to be handled according to the procedures adopted by the City and as described in the City Personnel Manual

Material Safety Data Sheets

MSDS sheets will be received from each vendor with the product when it is initially delivered to Public Works. The MSDS sheets will be kept in an organized binder in the Division area where the product is used or stored. Each Division will keep an MSDS binder with information for that work area. The MSDS binder will be clearly labeled on the outside for quick recognition. The MSDS binder will be kept in a location where it is visible and quickly accessible to the workers in the area. The MSDS binder will be updated / checked at least once per year to clean out sheets for products no longer used, and to make sure sheets are present for the products in use. Each Division employee is to be aware of the location of the MSDS binder, how it is organized, and how to use the MSDS sheets.

Fluid Storage

All fluids are to be stored in containers suitable for the product. Containers should be smaller than 55 gallons capacity when possible or feasible. All containers whether portable or fixed will have secondary containment for spill and leak control.

Outdoor containment areas will be protected from rain fall to the extent possible. Outdoor containment areas shall have a drain to release clean water. This drain is to be normally closed or plugged. It should only be opened to release water that has been confirmed as clean and then closed. The log sheet in the SPCC should be filled out each time an outdoor containment area is drained.

Indoor containment will be accomplished by containment pallets or interior containment walls.

Oil absorbent products made for the purpose of capturing and containing spills will be staged at various locations around the maintenance work areas. These products will be in containers that are clearly marked. The container shall have the absorbent product and a scoop or other means of transferring the product into a smaller container. These containers should be placed in close proximity to areas where oil, vehicle fluids, or solvent spills are likely to occur. All Division employees in the work area are to be advised of the location of the absorbent products and the use of them. The absorbent containers are to be checked weekly and refilled as necessary.

Spill Response

When a fluid spill occurs, the worker nearest the spill should take immediate action to contain the fluid. This will usually be to spread the oil absorbent material over the spill. Another action would be to take the absorbent rolls and place them around the spill area to capture the fluid. There may also be absorbent pads that could be placed over the spill. The absorbent materials or kits will be placed in a few locations around the maintenance area for quick access. These containers will be clearly marked. The SPCC has specific guidance on response actions, and contact information for emergency response staff. It also has guidance for notification of proper officials, when necessary. Once the spill is contained, the supervisor should be notified of the spill including the type of fluid and the amount. Proper steps for disposal of the absorbent materials should be taken. The MSDS information may provide guidance for this. Proper protective gear should be used when handling the spill materials. Recommended response action for a spill should be covered in safety meetings with employees at least once per year.

For spills of dry materials, the material should be swept up completely. If it can still be used it should be placed back in a proper container. If the material cannot be used, it should be disposed of in a proper manner. **In no situation should spilled dry material be washed away. Dry material spills should not be swept into grass or paved areas to be washed away by rain water.**

Used Oil

Oil taken from vehicles and equipment shall be placed in storage container(s) at Public Works. Used oil received from the public will be stored in the same container(s). This storage shall have secondary containment. The oil will be used for fuel in the waste oil heaters for the Public Works buildings. The Fleet Division will keep records of the amount of oil used as fuel for the heaters.

Used Anti-Freeze

Used Anti-Freeze taken from vehicles and equipment shall be placed in suitable storage container(s) at Public Works. This storage shall have secondary containment. The anti-freeze will be disposed of by delivery to a commercial agent. They will properly dispose of the used anti-freeze. The Fleet Division will keep records of the amount of Anti-Freeze that is disposed of and the method of disposal

Used Tires

When new tires are purchased for a unit direct from the vendor the vendor will take the old tires and be responsible for disposal. When tires are replaced out of inventory the old tires are to be collected and stored until they are picked up for disposal. The Fleet Division will keep records of the total number of tires sent for disposal.

Battery Disposal

When new batteries are purchased direct from the vendor the vendor will take the old battery and be responsible for disposal. When batteries are replaced out of inventory stock the old batteries are to be collected and stored until they are delivered to Sides Scrap Metal for disposal. The Fleet Division will keep records of the total number of batteries sent for disposal

Salt & Ice Control Products

The bulk salt will be stored in a covered area or salt dome on the Public Works site. This storage will protect the salt from rain. Salt application equipment shall be calibrated to the vehicle speed for control of the amount of salt spread. Equipment used to spread the salt shall be cleaned at the end of a snow / ice event. That salt will be properly disposed of by placing it back into storage or placing in a disposal container that will protect the salt from rain until it is hauled away.

Bagged ice melt products will be stored in a dry place protected from stormwater. Bagged ice melt products will be used according to the manufacturer's directions. Care will be taken to not over apply ice melt products.

Spraying Operations

All employees involved with the application of spray applied products shall be properly trained and hold any necessary certifications or licenses accordingly. This applies for pesticides used for vector control, and for herbicides used for plant or weed control. If required, a written plan for the spraying program shall be kept on file in the appropriate office. If required, field reports or summary reports on the spraying program shall be properly kept in the appropriate office.

All chemicals and products used in such spraying programs shall be properly stored. All chemicals and products used in such spraying programs shall be properly handled by authorized personnel. Disposal of unused or aged products shall be through proper methods.

Appendix 16

Training Videos

MS4 Stormwater Education Videos

The following training videos are available for viewing.
These are located in the Stormwater Coordinators office.

A Drop In The Bucket	Storm water Pollution Prevention
Storm Warnings	Storm water Pollution Prevention
Rain Check	
Ground Control	for construction sites
SPCC	Controlling Oil Spills
IDDE	Illicit Discharges

Date: Nov 2013