



## Infrastructure Committee Meeting Agenda Item Cover Sheet

**Submitting Department:** Public Works Department

**Presenter at meeting:** Jon Durst  
**E-mail Address:** J.Durst@cedar-rapids.org

**Phone Number/Extension:** 5856

**Alternate Contact Person:** Jen Winter  
**E-mail Address:** J.Winter@cedar-rapids.org

**Phone Number/Extension:** 5803

**Description of Agenda Item:** Request for approval and recommendation to Council of amendment to the following ordinances to create a "topsoil rule": Chapter 71 (Erosion and Sediment Control for Construction Sites) to include a new permit fee schedule for Major and Minor Erosion Control permits; Chapter 72 (Stormwater Management) to include topsoil preservation and restoration requirements for both private and public developments

**Background:** Chapter 71: Additional SWPPP requirements will ensure erosion control measures are implemented for all construction phases, as well as adequate documentation of erosion control efforts. Minor Erosion Control permit application requirements include additional erosion control plan elements to ensure a site has adequate controls. A permit fee schedule for both Minor and Major Erosion Control permits will support administration of the erosion control and topsoil program; to date, no permit fee has been established. Definition modifications and additions, and statements regarding publically-funded projects, are included to support implementation of the topsoil policy. Chapter 72: The topsoil policy requires that existing topsoil be retained and redistributed on site in a uniform, uncompacted manner, and implementation of a Soil Quality Plan (soil management method(s) selected from Section 2E-6 Part F of the Iowa Stormwater Management Manual) on private and public development sites requiring a Major or Minor Erosion Control permit. This will preserve benefits of healthy soil that removal of topsoil and construction activity diminishes or eliminates, by infiltrating stormwater and decreasing runoff, resulting in decreased flooding and erosion, water quality protection, and homeowner benefits.

**Action / Recommendation:** Approve and Recommend to Council.

**Alternative Recommendation:** Modify based on Committee feedback and place on next month's agenda.

**Time Sensitivity:** Normal

**Estimated Presentation Time:** 15 minutes

**Budget Information (if applicable):** NA

**Explanation (if necessary):** NA

# City of Cedar Rapids Proposed Soil Quality Policy

Infrastructure Committee  
November 10, 2015

## Vision

“Cedar Rapids is a vibrant urban hometown – a beacon for people and businesses **invested in building a greater community now and for the next generation.**”

**GreenCR**

**ConnectCR**

**GrowCR**

**InvestCR**



**StrengthenCR**

**PromoteCR**

**ProtectCR**

# Background

- State-wide 4” Rule Modified, 2015
  - Language Revision
  - “technologically possible or economically practicable”
- Initial draft in Summer, 2015
  - Researched other community policies
  - Stakeholder Outreach
  - Iowa Stormwater Management Manual
  - Better name is “Top layer” policy

# Purpose

- Purpose of Policy
  - Retain or Restore Soil QUALITY
- Results of Policy
  - Reduced Runoff (flooding and erosion)
  - Enhance Water Quality
  - Vital Urban Landscapes

# Feedback

- Why not enforce the current state rule?
- Has the city ever enforced the state rule?
- Can stormwater management features be discounted?
- Why not just go back to the old state rule?
- Why is this policy better than the old rule?
- Why does the city have to do this now?
- How much will this rule cost me?

# Mechanics

- Phase 1:
  - Retain and Redistribute
- Phase 2:
  - Select a Soil Quality Plan
    - 1 of 8 soil management methods
    - Iowa Stormwater Management Manual
      - Section 2E-6 Part F



# Methods

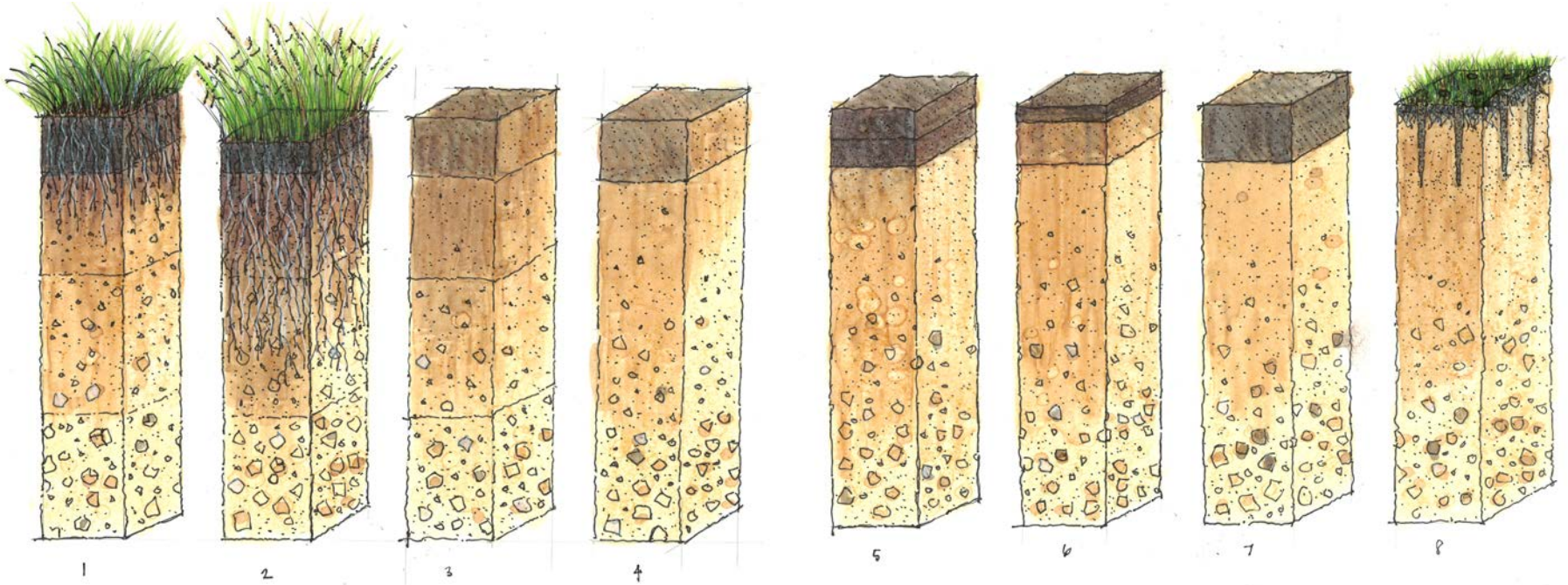
## WHAT IS THE PROPOSED NEW TOPSOIL RULE?



METHODS ALLOW BUILDERS TO MAKE TOPSOIL ON SITE WITH TILLAGE AND/OR INEXPENSIVE & ACCESSIBLE AGGREGATES

- Relatively Cheap
- Simply Applied
- Cookbook Plans

# Methods



# Ordinance Changes

- Chapter 71
  - Definitions, Permit requirements
- Chapter 72
  - Add specific language for topsoil
- Permit Fee Schedule
  - Already authorized within ordinance
  - Fee schedule needs Council approval

# Permit Fees

|                  | <b>Major Erosion Control Permit Fee</b>   | <b>Minor Erosion Control Permit Fee</b>           |
|------------------|---|---|
| <b>Cost</b>      | \$200   | \$100   |
| <b>Fee Items</b> | SWPPP Review<br>Plan Review<br>Site Inspections<br>Administration   | Plan Review<br>Site Inspections<br>Administration |
| <b>Other</b>     | Penalty for not acquiring permit prior to work = 2x permit fee<br><br>Resubmittal and Renewal fee = 50% of initial permit fee |   |

# Benefits

- Aligns with City’s Vision and EnvisionCR Goals
- Provide Flexibility to Developers/Builders
- Provide Economical Options
- Reduced Flooding & Erosion
- Increased Water Quality
- Effective Policy as for Stormwater Master Plan
- Harmonize Corridor Development Standards
- Ties to ISMM



## Infrastructure Committee Meeting Agenda Item Cover Sheet

**Submitting Department:** Public Works Department

**Presenter at meeting:** Garrett Prestegard  
**E-mail Address:** g.prestegard@cedar-rapids.org

**Phone Number/Extension:** 5115

**Alternate Contact Person:** Dave Wallace  
**E-mail Address:** d.wallace@cedar-rapids.org

**Phone Number/Extension:** 5653

**Description of Agenda Item: Stormwater Master Plan Update**

**Background:** The Public Works department is in the process of updating the Stormwater Master Plan. The Stormwater Master Plan will be used to assess the function of the City's stormwater management system, and will aid in the selection of capital improvement projects and policy recommendations. The following proposed milestones and schedule have been established for updating the Stormwater Master Plan:

| Milestones   | Status or Schedule |
|--|--------------------|
| Assemble and review existing data and reports to identify where additional information is needed.  | Complete           |
| Identify known issues where capital improvement projects may be warranted.   | Complete           |
| Select an engineering consultant to complete the Stormwater Master Plan update.  | Complete           |
| Develop professional services agreement.   | Complete           |
| Engineering consultant will review and analyze information provided by the City. The engineering consultant will use this information to recommend capital improvement projects for the FY2017 budget. | Complete           |
| Engineering consultant will complete a modeling update of the City's stormwater management system.   | 06/15 to 03/16     |
| Engineering consultant will submit a draft of the updated Stormwater Master Plan.  | 03/16              |
| Adopt Stormwater Master Plan.  | 06/16              |

Workshop #3 for the Stormwater Master Plan update was held between HDR Engineering, Anderson-Bogert and City staff on Wednesday, October 14<sup>th</sup>. A summary of Workshop #3 is as follows:

- HDR provided an overview of the stormwater macro modeling efforts. The Kenwood watershed was selected for detailed basin level modeling due to the number of flash flooding issues identified in the area after the June 2014 rain event.
- Anderson-Bogert led a discussion on policy recommendations to be presented in the Stormwater Master Plan update.

- HDR led a discussion on asset management. The Stormwater Master Plan update will include a section on asset management that will summarize how the City collects and tracks information for existing infrastructure, and how this information will help define City policy.

Workshop #4 for the Stormwater Master Plan has been schedule for Wednesday, December 9<sup>th</sup>. At Workshop #4, HDR will present preliminary results on basin level stormwater modeling.

**Action / Recommendation:** None

**Alternative Recommendation:** None

**Time Sensitivity:** N/A

**Estimated Presentation Time:** 5 minutes

**Budget Information (if applicable):** N/A

**Explanation (if necessary):** N/A



To: City Council Infrastructure Committee  
 From: Sandy Pumphrey, PE  
 Subject: Update – Sanitary Sewer Masterplan  
 Date: November 10, 2015

---

**Background:**

The Public Works Department is in the process of updating the Sanitary Sewer Master Plan. The Sanitary Sewer Master Plan will be used to assess the function of the City’s sanitary sewer system, and will aid in the selection of capital improvement projects and policy recommendations. The following proposed milestones and schedule have been established for updating the Sanitary Sewer Master Plan:

| <b>Milestones</b>  | <b>Status or Schedule</b> |
|--|---------------------------|
| Identify known issues where capital improvement projects may be warranted.                             | Complete                  |
| Select an engineering consultant to complete the Sanitary Sewer Master Plan update.                    | Complete                  |
| Develop professional services agreement.   | Complete                  |
| Engineering consultant will review and analyze information provided by the City.                       | Complete                  |
| Engineering consultant will complete a modeling update of the City’s sanitary sewer collection system. | 06/15 to 03/16            |
| Engineering consultant will submit a draft of the updated Sanitary Sewer Master Plan.                  | 03/16                     |
| Adopt Sanitary Sewer Master Plan.  | 06/16                     |

Workshop #2 was held on September 3, 2015. The following items were discussed at the meeting:

- Reviewed information on the existing sanitary sewer system
- Reviewed information on historical and planned improvements
- Discussed data acquisition for the sanitary sewer modeling effort
- Discussed policy items to be overviewed in the Sanitary Sewer Master Plan

**Project Description:**

The Sanitary Sewer Master Plan will be used to assess the function of the City’s sanitary sewer system, and will aid in the selection of capital improvement projects and policy recommendations.

**Update:**

The project is currently on schedule. Data gaps in our GIS database are being filled by targeted and strategic surveying of the sanitary sewer system. Modeling work is in full swing. This phase of the work is due to be completed by March 2016. The next consultant/staff workshop is scheduled for November 12, 2015, where modeling efforts to date will be presented for City Staff feedback.





To: City Council Infrastructure Committee  
From: Todd Fagan  
Subject: Five minute update on EAB plan with Q & A.  
Date: November 10, 2015

---

**Background:**

**An EAB infestation was confirmed in Cedar Rapids on 10-19-15. This will activate the EAB management plan.**

**Project Description:**

The EAB Management plan was presented to the committee earlier this year. While several aspects of the plan are currently active, the confirmation of an infestation will activate other parts of the plan.

**Update:**

Staff would like to update the committee on the EAB plan and the upcoming resource requirements and answer any questions the committee may have.



To: City Council Infrastructure Committee  
From: Doug Wilson, Paving for Progress Program Manager  
Subject: Update – ITEM  
Date: October 29, 2015

---

**Background:**

35T

**Project Description:**

35T

**Update:**

Paving for Progress Update – Please see attached for update on outside side design and contractor work. Additional information will be provided on 2016 construction season work by City Forces at the meeting.

## Upcoming Paving for Progress Projects

| CIP        | Project Name   | Bid Date       |
|------------|--|----------------|
| 3012131    | 12th Avenue SE from 6th Street SE to 19th Street SE                            | May 2017       |
| 3012127    | 14th Avenue SE from 36th Street to 42nd Street                                 | January 2016   |
| 3012100    | 15th Ave fr 12th St to C St SW   | TBD            |
| TBD        | 16th Ave SE from 4th St to 5th St Storm, Sanitary, and Roadway Extension       | TBD            |
| 3012150    | 19th Street NE from 1st Avenue to E Avenue                                     | November 2016  |
| 305132     | 1st Avenue Bridge over Cedar River Repairs                                     | Fall 2017      |
| 3012126    | 29th St Dr SE 1st Ave to Tama St   | May 2016       |
| 3012097    | 29th St fr 1st Ave to Center Pt Rd   | TBD            |
| 3012156    | 30th Street SE from Mt Vernon Road to Pioneer Avenue                           | TBD            |
| 3012096    | 32nd St fr 1st Ave to Center Pt Rd   | TBD            |
| 304361     | 34th Street SE Bridge Replacement  | September 2017 |
| 3012155    | 3rd Avenue from 5th Street SE to 6th Street SW                                 | TBD            |
| 3012147    | 42nd St NE from Edgewood Rd to IA N RR   | March 2016     |
| 3012092    | 42nd St NE from I-380 to Wenig Rd  | January 2016   |
| 3012129    | 66th Ave SW from Locust Rd to 6th St   | February 2017  |
| 301695     | 6th Street SW from 33rd to Wilson Ave  | TBD            |
| 3012130    | 6th Street SW from Linn County Line to Capital Drive SW                        | April 2016     |
| 301695     | 6th Street SW from Wilson Ave to 15th St SW                                    | TBD            |
| 3012050    | 74th Street NE from White Ivy Place to to C Ave                                | January 2016   |
| 3012111    | 7th St SE and 8th St SE from A Ave NE to 12th Ave SE - Ph 1                    | May 2015       |
| 3012111    | 7th St SE and 8th St SE from A Ave NE to 12th Ave SE - Ph 2                    | Jan/Feb 2016   |
| 3012101    | 8th Ave fr 18th St to Rockford Rd SW   | TBD            |
| 3012151    | 8th Avenue SW from L Street SW to 7th Street SW                                | March 2016     |
| 3012091    | B Avenue NW from Highland Dr to 8th St   | December 2015  |
| 3012008    | C Avenue NE from Old Marion Road to 40th Street                                | January 2017   |
| 3012095    | C St fr Bowling St to Wilson Ave SW  | TBD            |
| 3012094    | Center Point Rd fr J Ave to Coe Rd   | TBD            |
| 3012089/90 | Chandler Street/20th Street SW Water Main Repl and Roadway Impr                | TBD            |
| TBD        | E Avenue NW  | TBD            |
| 301689     | Edgewood Road SW Improvement form E Avenue to F Ave Signals                    | March 2017     |
| 301689     | Edgewood Road SW Improvements from E Avenue to F Avenue Roadway Reconstruction | March 2016     |
| 301689     | Edgewood Road SW Improvements from F Avenue to O Avenue                        | TBD            |
| 3012088    | Ellis Blvd fr K Ave to O Ave   | TBD            |
| 3012102    | Forest Dr fr Grande to Mt Vernon Rd SE   | TBD            |
| 3012103    | Grande Ave from 21st St to Bever Park  | TBD            |
| 3012043    | Johnson Avenue NW from Midway Dr to 1st Avenue                                 | January 2018   |
| 3012131    | McCarthy Road SE from 19th Street SE to Memorial Drive SE                      | March 2016     |

|         |   |               |
|---------|---|---------------|
| 3012153 | Memorial Drive SE from Mt Vernon Road SE to McCarthy Road SE                        | TBD           |
| 301379  | Memorial Drive SE Improvements from Mount Vernon Road to Bever Avenue SE            | May 2016      |
| 3012120 | Midway Dr from Peace to Bezdek Recon  | May 2015      |
| 3012120 | Midway Dr Rehab   | May 2017      |
| 3012149 | Mt Vernon Rd from Memorial Dr to Vernon Dr SE                                       | June 2016     |
| 3012149 | Mt Vernon Rd from West of 14th St to Vernon Dr SE                                   | February 2017 |
| 3012115 | Northwood Drive NE from Glass Rd to 42nd St - Roadway Impr                          | January 2017  |
| 3012115 | Northwood Drive NE from Glass Rd to 42nd St - Water Main                            | April 2016    |
| 3012121 | O Ave from 16th St to 24th St. Roadway  | Spring 2018   |
| 3012121 | O Ave from Ellis Blvd to 16th St Roadway  | Spring 2017   |
| 3012121 | O Avenue from 24th St. to Edgewood Road   | Spring 2019   |
| 3012121 | O Avenue from Ellis Blvd to 16th St Retaining Walls                                 | Fall 2016     |
| 3012099 | Oakland Rd NE from H ave to J Ave   | February 2016 |
| 3012148 | Oakland Rd NE, Old Marion Rd. NE, and Center Point Road NE                          | TBD           |
| 3012152 | Peace Ave Midway to Jacolyn   | TBD           |
| 3012094 | PfP 10 Year Plan  | TBD           |
| 3017970 | PfP Project Managerment Services - FY17   | TBD           |
| 3012116 | Seminole Valley Road NE from Fords Crossing Road to 42nd Street NE                  | October 2016  |
| 3012116 | Seminole Valley Road NE from Fords Crossing Road to 42nd Street NE - Sanitary Sewer | March 2016    |
| 3012120 | West Post Rd from Gordon to E Ave Water Main  | June 2015     |
| 3012120 | West Post Rd NW from Gordon to Plainview Roadway Recon - Phase 2                    | July 2016     |
| 3012120 | West Post Rd NW from Plainview to E Ave Roadway Recon - Phase 1                     | February 2016 |



# PAVING FOR PROGRESS

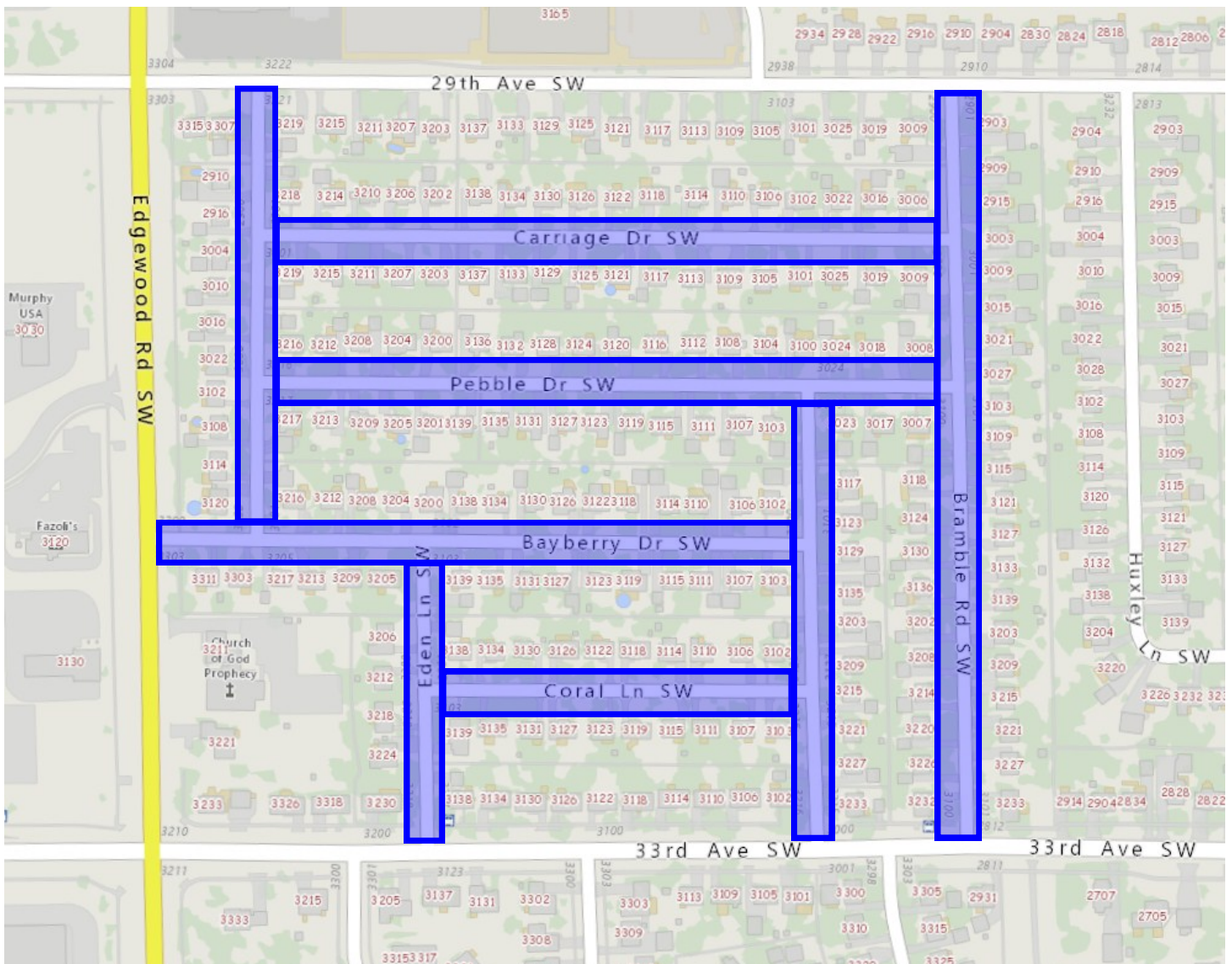
## Infrastructure Update 11-10-15



### Maintenance Projects Planned for 2016

| Project Name                                     | Quad | Miles Paved |
|--|------|-------------|
| 34th Street from 1st Avenue to West of F Avenue  | NE   | 0.51        |
| 7th Street from 10th Avenue to 11th Avenue       | SE   | 0.07        |
| Bayberry Drive from Cameo Lane to Edgewood Road  | SW   | 0.21        |
| Bramble Road from 29th Avenue to 33rd Avenue     | SW   | 0.25        |
| Burch Avenue from 24th Street to 19th Street     | NW   | 0.35        |
| Cameo Lane from Pebble Drive to 33rd Avenue      | SW   | 0.15        |
| Carriage Drive from Bramble Road to Chapel Drive | SW   | 0.22        |
| Chapel Drive from 29th Street to Bayberry Drive  | SW   | 0.15        |
| Coral Lane from Cameo Lane to Eden Lane          | SW   | 0.12        |
| Eden Lane from Bayberry Drive to 33rd Avenue     | SW   | 0.1         |
| F Avenue from 4th Street to Ellis Boulevard      | NW   | 0.18        |
| F Avenue from Estroy Drive to Old Marion Road    | NE   | 0.35        |
| Hazel Drive from Elmhurst Drive to House #1247   | NE   | 0.16        |
| Madison Street from Glass Road to 29th Street    | NE   | 0.3         |
| Pebble Drive from Chapel Drive to Bramble Road   | SW   | 0.22        |
| <b>TOTAL MILES PAVED</b>                         |      | <b>3.34</b> |

### Rolling Green Area Street Improvements





To: City Council Infrastructure Committee  
From: Michael Duffy  
Subject: Update – Street Maintenance Projects  
Date: November 10, 2015

---

**Background:**

Monthly street maintenance information intended to provide the status of work being performed by City crews.

**Projects Description:**

ADA ramps, asphalt and/or concrete work, winter planning

**Update:**

The most current information will be provided at meeting.

Upcoming Utilities Department Projects Anticipated To Have Plans and Specifications  
Filed –December, January, February  
Report to Council Infrastructure Committee on 11-10-2015

**Filing Plans and Specifications**

*Water and WPC Plant Projects*

Filing January 12 – WPCF Chlorine System Upgrade (615148-03). Project will expand the existing Disinfection Building to house additional liquid chlorine ton cylinders, improve loading and unloading of new cylinders, and provide a modern chlorine feed room and laboratory/mechanical room. The project will include installation of weigh scales, vaporizer equipment, chlorine gas feed equipment, a dry scrubber system, and de-chlorination chemical storage tanks. The upgraded disinfection system will include safety features required by the Cedar Rapids Fire Department. The project will also allow the WPCF staff to route diversion sewer flow through the disinfection process as desired by the Iowa DNR. The projected cost estimate is \$4,150,000.

Filing January 12 – Seminole River Bank Armoring (6250045). River bank erosion is threatening the raw water transmission main and eroding the roadway access in several locations along the Seminole Well Field. The project will involve the stabilization of approximately 1,500 ft. of river bank near Seminole Well 2 and Collector Well 4. The Engineer's opinion of probable cost is \$340,000.

Filing January 12 – WPCF Roof Replacements (615190). Flat roofs on the Oxygen Generation Building, Maintenance Building, Main Lift Station, and Final Lift Station at the WPCF have reached the end of their useful lives. The project will include the replacement or repair of the flat roofs on these buildings, as well as the corresponding flashings, scuppers, parapet wall caps, and masonry. An opinion of probable cost of \$450,000 was developed during an evaluation conducted in the spring of 2015.

Filing January 12 – NWTP Roof Replacements (625904). Flat roofs on the original portions of the NWTP have reached the end of their expected lives. The project will entail the replacement or repair of the flat roofs and corresponding flashings, scuppers, parapet wall caps, masonry, and roof drainage elements on Building 20, Building 30, and the Generator Building at the NWTP. An opinion of probable cost of \$750,000 was developed during an evaluation conducted in the spring of 2015.

Filing January 26 – Southbound Turning Lane IA-13 and Bertram Road.(6150015) Project to improve right turn safety on to Bertram Road from Iowa Highway 13. The project is intended to enhance the safety of through traffic on Highway 13, vehicles making deliveries to the WPCF and general traffic slowing to make a right turn on to Bertram Road from Highway 13. Engineer's opinion of probable cost is \$210,000.

*Water Main Projects*

| <b>Water Proj #</b> | <b>Name</b> | <b>Project Description</b> | <b>Filing Date</b> |
|---------------------|-------------|----------------------------|--------------------|
|                     |             |                            |                    |

All significant current water main work being planned is in conjunction with Paving for Progress projects.

*Upcoming Public Hearings*

- December 1 – UASB Reactor No. 3 Improvements (615162)
- January 26 – WPCF Chlorine System Upgrade (615148-03)
- January 26 – Seminole River Bank Armoring (6250045)
- January 26 – WPCF Roof Replacements (615190).
- January 26 – NWTP Roof Replacements (625904).
- February 9 – Southbound Turning Lane IA-13 and Bertram Road (6150015)