

**MEETING MINUTES**  
**PUBLIC SERVICES COUNCIL COMMITTEE**  
**Monday, April 22, 2019**  
**Public Services Large Conference Room**

**560S 16<sup>th</sup> Street**

**In Attendance:**

Council Member – Jim Sandager	City Engineer - Brian Hemesath
Council Member – Kevin Trevillyan	Public Services Director – Bret Hodne
City Manager – Tom Hadden	Public Services Deputy Director – Joe Cory
Deputy City Manager – Jamie Letzring	Public Services Superintendent – Kevin Hensley
Assistant City Attorney – Greta Truman	Comm. & Econ. Dev. Director – Clyde Evans
Principal Engineer – Jeff Nash	Principal Engineer – Jason Schlickbernd

Meeting was called to order at 11:33 AM by City Engineer, Brian Hemesath.

**1. Storm Water Pollution Prevention Policy and Fee Update (JN)**

**Issue Summary:**

Staff has developed an administrative policy to provide standard operating procedures (SOP's) for City inspection and enforcement of storm water pollution prevention activities on construction and building sites in West Des Moines. This policy includes a flow chart to use for storm water pollution inspection and enforcement. Staff also proposes updating the resolution for the City storm water inspection fees. The inspection fee updates are based on having an escalating scale when re-inspections are necessary similar to what other City departments already do for re-inspections of their items.

The goal of this policy and inspection fee updates is to achieve better compliance among developers, owners, contractors, builders and other the responsible parties for storm water pollution prevention on construction and building sites and to cover the resources and time required when City re-inspections are necessary.

Per Iowa DNR and US EPA regulations, best management practices shall be used for storm water pollution prevention, erosion control and sediment control for all work on construction sites in the City. These regulations tasked the City for the enforcement of these items. The City and responsible parties can be subject to possible state and federal fines for storm water pollution prevention violations and non-compliance. Also storm water violations and debris runoff from construction sites are common complaints the City receives from the public.

These proposed policy and inspection fee updates have been reviewed by the Engineer Services, Development Services, Legal and Public Services Departments. Staff request that these proposed policy and inspection fee updates be approved for implementation.

***Direction***

The PSCC supported the policy and inspection fee updates and recommended approval.

## **2. 1011 88<sup>th</sup> Street (Richard Mead Parcel) – House & Outbuilding Sale (JS)**

### **Issue Summary:**

The City entered into a contract with McClure Engineering Company on December 11, 2017 to perform conceptual design of a possible interchange on I-80 near 88<sup>th</sup> & Ashworth in order to be able to identify construction limits, potential development impacts for planning purposes, and cost estimating. Since that time, Phase 1 & 2 of Ashworth Road Reconstruction east of I-80 to Jordan Creek Parkway have taken place and construction on Phase 3 west of I-80 to 98<sup>th</sup> Street is to commence soon. Formal discussions about land use changes in this area have also occurred during this same time frame. Richard Mead approached the City in August 2018 about the possibility of voluntarily selling his property to the City, along with adjacent property subject of a 2007 Development Agreement between Mead and the City. A negotiated purchase agreement was reached in February 2019. Closing on the property is tentatively scheduled for July 1, 2019. The property includes a 1182 sf single-story ranch style house built in 1986 with 2 bedrooms and 1 bathroom and detached garage, and a 24'x24' (576 sf) detached outbuilding built in 1988. Demolition of any remaining foundations/slabs and abandonment of private water well and onsite wastewater treatment system will be handled after the structures have been removed. City Staff recommend trying to sell the structures, but are open to suggestions from PSCC members.

### ***Direction***

The PSCC supported the sale of the single-story house, detached garage, and detached outbuilding.

## **3. Fuller Road Concept Study – Update (JS)**

### **Issue Summary:**

The City entered into a contract with Snyder & Associates in August 2018 to conduct a conceptual study of Fuller Road from the south leg of S. 19<sup>th</sup> Street to South 16<sup>th</sup> Street. The cross section of Fuller Road (major collector) varies throughout this corridor, but generally consists of 26-foot wide concrete pavement with curb & gutter on the north side and gravel/asphalt/concrete shoulder on the south side. Mailboxes generally exist on the north side of Fuller Road west of Jordan Creek and on the south side east of Jordan Creek. The shoulders of Fuller Road are generally used by USPS and other delivery trucks so that two lanes of traffic are available for vehicles to keep moving. Drainage of Fuller Road as well as drainage of the properties on the south side of Fuller Road were considered. Preliminary information was presented to PSCC on November 5, 2018 and direction received was to widen Fuller Road to minimum 31 feet with shared lane markings (sharrows) and adding a curb on the south side. No on-street bike lane was recommended due to nearby trails and impacts of additional widening on adjacent property owners. The following concepts were examined:

- Concept 1A was for a 31-foot wide urban section with curb & gutter on both sides of roadway, which would include 5 feet street widening to the south with sidewalk along the south side of the entire length of project. Estimate for Concept 1 was approximately \$780,000.
- Concept 1B was for a 37-foot wide urban section with curb & gutter on both sides of roadway, which would include 11 feet street widening to the south with sidewalk along the south side of the entire length of project. Estimate for Concept 2 was approximately \$860,000.
- Concept 2 was for a 33-foot wide urban section with no curb on south side of roadway, which would include a bioswale and 7 feet street widening to the south with no sidewalk along the south side of the entire length of project. Estimate for Concept 3 was approximately \$810,000.

City Staff recommendation would be Concept 1A, possibly widening to 33 feet.

***Direction***

The PSCC supported Concept 1A, but widening to 33 feet with no sidewalk. Grading for future sidewalks to be considered during design.

**4. Weekend Work Requests**

Contractors are requesting permission from the PSCC to work weekends (mainly Saturday from 8am-5pm with possibility of Sunday similar times should weather warrant) on the following projects:

- SW 60<sup>th</sup> Street South of Veterans Parkway – Concrete Technologies, Inc. (CTI)
- Vine Street Reconstruction from 9<sup>th</sup> Street to 12<sup>th</sup> Street – Alliance Construction Group
- Ashworth Road Reconstruction from I-80 to 98<sup>th</sup> Street – Iowa Civil Contracting
- EP True Parkway Widening from Jordan Creek Parkway to 81<sup>st</sup> Street – Concrete Technologies, Inc. (CTI)
- S. 88<sup>th</sup> Street & Mills Civic Parkway Reconstruction – McAninch
- Booneville Road Reconstruction from S. 88<sup>th</sup> Street to West of S. 100<sup>th</sup> Street – Absolute Concrete
- Valley Junction Alley Improvements Phase 5B – Corell Contractors
- Valley West & Westown Parkway Stormwater Improvements – J&K Contracting
- 27<sup>th</sup> & Vine Street Culvert Reconstruction – Jenco Construction
- 2018 Channel Repair Program – Vanderpool Construction

**5. Review of Items for Council Meeting (May 6, 2019)**

ENGINEERING COUNCIL AGENDA ITEMS

**CONSENT AGENDA**

Motion – Approving Amendment No. 2 to Professional Services Agreement

- West Public Services Facility  
(0510-027-2017)

Motion – Approval of Change Order

- Public Safety Station #21 Roof Replacement  
(0510-057-2018)

Resolution - Approval of Agreement

- MidAmerican Energy for Relocation of Transformers  
Sammons Financial (0510-010-2019)
- MidAmerican Energy to Extend Electric Service  
West Public Services Facility (0510-027-2017)

**PUBLIC HEARINGS**

Award Contract

- S. 33<sup>rd</sup> & Fuller Rd Retaining Walls  
(0510-037-2017)
- Public Safety Station #21 Generator Replacement  
(0510-015-2018)
- Grand Avenue, South Jordan Creek Parkway to South 88<sup>th</sup> Street  
(0510-056-2018)
- The Parkways Turn Lane on South Jordan Creek Parkway

- (0510-060-2018)
- S. 81<sup>st</sup> & Cascade Widening  
(0510-006-2019)
- Cedar Ridge Sewer Extension  
(0510-054-2018)

PUBLIC SERVICES COUNCIL AGENDA ITEMS:

**CONSENT AGENDA**

Motion – Approval of Contract Agreement

- Portland Cement Concrete for Improved Street Maintenance

Motion – Approval of Proclamations

- Public Works Week, May 19-25, 2019

**6. Staff Updates:**

City Engineer Hemesath informed the Committee that gravel driveways on Ashworth Road Phase 1 & 2 will be constructed in concrete 15 feet back from the trail/sidewalk at no cost to the homeowners. This will be done this spring and a change order for this will be upcoming. Two homeowners who rebuilt their driveways themselves will be reimbursed the equivalent of 15 feet similar to what is being done for the others. Assistant City Attorney Truman suggested an agreement with a hold harmless be done for the improvements since they are being or have been constructed on private property.

**7. Other Matters:**

None.

The meeting adjourned at 12:23 pm. The next Public Services Council Committee meeting is scheduled for May 13, 2019.

A recording was made. Respectfully submitted by Juanita Greer, Secretary.

**CITY OF WEST DES MOINES  
OFFICE OF ENGINEERING SERVICE  
JEFF NASH: PRINCIPAL ENGINEER**

**ADMINISTRATIVE POLICY 5-11**

**INSPECTION AND ENFORCEMENT STORM WATER POLLUTION PREVENTION FOR  
CONSTRUCTION SITES**

**1.0 Purpose**

**1.1** The purpose of this administrative policy is to provide standard operating procedures (SOP's), processes and actions for City Staff for the inspection and enforcement of storm water pollution prevention activities for construction sites in West Des Moines, Iowa.

**1.2** All work on construction sites in the City shall use best management practices for storm water pollution prevention, erosion control and sediment control per the City's Municipal Separate Storm Sewer System (MS4) permit, Construction Site Erosion and Sediment Control Ordinance (COSESCO, codes, resolutions, and standards and state and federal requirements.

**1.3 Definitions:**

**1.3.1** *Storm Water Pollution Prevention:* Not allowing or controlling erosion, sediment, pollution, and other debris entering off a construction site, into a drainage system or into any waterway.

**1.3.2** *Best Management Practices (BMP's):* Activities, operations, structural controls, treatment requirements and other management procedures to prevent or reduce pollution and debris runoff erosion and sediment controls around unstabilized and disturbed soil areas (silt fence, wattles, erosion control socks, etc.)

**1.3.3** *Construction Site:* The location which construction or building activity, including clearing, grading and excavating results in soil disturbance.

**1.3.4** *Stabilization:* Methods that prevent and control sediment, erosion and debris runoff on the entire disturbed soil section for a location. Methods include mulch, straw, vegetative cover and rock drive entrances. Disturbed ground must be stabilized immediately if a site is to be in-active for a period exceeding the time specified in the responsible party's NPDES General No. 2 permit or the City's MS4 permit.

**1.3.5** *Municipal Separate Storm Sewer System (MS4) Permit:* The permit issued to the City from the Iowa DNR to allow discharging of storm water from within the boundaries of a municipality to the waters of the state.

**1.3.6** *National Pollutant Discharge Elimination System (NPDES) General Permit No. 2:* A permit issued to the owner or operator of a construction site one acre or larger from the Iowa DNR to set the requirements for and to allow discharging of storm water under the City's MS4 Permit.

- 1.3.7** *Construction Site Erosion and Sediment Control Ordinance (COSESCO)*: The ordinance that enables the City to conduct site visits of construction site erosion and sediment control on private property, defines the responsible parties for storm water pollution prevention on construction sites, sets the parameters for storm water pollution prevention compliance and sets forth penalties for noncompliance with the requirements of the MS4 and NPDES General No. 2 Permits and set forth penalties for noncompliance with the requirements of the MS4 and NPDES General No. 2 Permits.
- 1.3.8** *Storm Water Pollution Prevention Plan (SWPPP)*: Written documents that describe the pollution prevention practices and activities that will be implemented on the construction site. It includes descriptions of the site and of each major phase of the planned activity, the roles and responsibilities of contractors and subcontractors, and the inspection schedules and logs. It is also a place to document changes and modifications to the construction plans and associated storm water pollution prevention activities.
- 1.3.9** *Potential Storm Water Violation*: Failing/ damaged BMP's, evidence of previous discharge or practices that contribute to the potential for polluting from a location.
- 1.3.10** *Storm Water Violation*: Actual non-complying storm water discharge and pollution per the MS4 or NPDES permits from a location and/or during activities.
- 1.3.11** *Hazardous Condition*: A situation, pattern of non-compliance, repeat violations or direct discharge of a hazardous substance onto the land into a water of the state, or into the atmosphere.
- 1.3.12** *Stop Work Order*: A City act and notice that no activities can be done on a construction or building site and all city permits are suspended, except for correcting storm water pollution prevention violations.
- 1.3.13** *Responsible Party*: The permittee(s) listed on the NPDES General No. 2 Permit for a construction site. For sites where a NPDES General No. 2 Permit is not required the contractor, builder, company, entity, and/or property owner who manages the activities and storm water prevention for the site is considered the responsible party per the City's COSESCO.

**1.4** City codes, ordinances and permits applicable to construction site storm water pollution prevention:

- 1.4.1** West Des Moines MS4 Permit as referenced in City Code Title 8, Chapter 6 and on file with the City Clerk's office.
- 1.4.2** West Des Moines Construction Site Erosion and Sediment Control Review and Site Visit Program (COSESCO) as referenced in City Code Title 8, Chapter 6 and on file with the City Clerk's Office.

- 1.4.3 When applicable, individual site NPDES General Permit No. 2 as referenced in City Code Title 8, Chapter 6 per the Code of Iowa, Iowa Administrative Code and Federal Clean Water Act.
- 1.4.4 City Code 8-6: Construction Site Erosion and Sediment Control.
- 1.4.5 City Code 8-5: Site Grade Regulations.
- 1.4.6 City Code 8-2 Article A: Building Code.
- 1.4.7 City Code 7-8 Article E: Illicit Discharge to Storm Sewer System.
- 1.4.8 City Code 7-8 Article G: Post Construction Storm Water Management.
- 1.4.9 City Ordinance 2275: Grading Permit.
- 1.4.10 City Council Resolution for Schedule of Rates, Fees and Charges for Erosion & Sediment Control Construction Site Visits. *The resolution is attached to this policy.*

**1.5 Applicable City divisions and public entities:**

- 1.5.1 Engineering Services – Administration Division: 515-222-3475.
- 1.5.2 Development Services - Building Inspection Division: 515-222-3620.
- 1.5.3 Public Services: 515-222-3480.
- 1.5.4 City Manager’s Office: 515-222-3550.
- 1.5.5 City Attorney’s Office: 515-222-3523.
- 1.5.6 Iowa DNR – Environmental Protection Division Field Office 5: 515-725-0628.
- 1.5.7 U. S. EPA – Region 7 Kansas City Mo.: 1-800-223-0425.

**2.0 Scope**

- 2.1 This policy sets forth the procedures and criteria to be followed by City staff for inspections and enforcement of storm water pollution prevention activities and compliance on construction sites in the City.
- 2.2 The flow chart for storm water pollution prevention inspection and compliance procedures is attached to this policy.
- 2.3 Storm water pollution prevention compliance items:
  - 2.3.1 Prevention of illicit discharge to the storm sewer, drainage areas or water ways.

- 2.3.2 Properly in-placed and maintained perimeter erosion and sediment controls around unstabilized areas. (Silt Fence, wattles, erosion control socks, etc.)
- 2.3.3 Stabilized construction entrances for work and building sites. (Granular or paved entrance).
- 2.3.4 No debris and mud track out and maintain cleaning on streets adjacent to construction and building sites.
- 2.3.5 Stabilized inactive disturbed ground (0-14 Day Rule) with mulch, straw, properly established vegetative cover or other approved comprehensive controls that will prevent erosion and storm water debris runoff for a construction site.
- 2.3.6 Properly in-placed and maintained inlet protection devices (IPD's) installed for intakes or inlets.
- 2.3.7 Using and removing full concrete wash out bags on construction sites.
- 2.3.8 Following the requirements of the City's MS4 permit and the construction site SWPPP and NPDES General Permit No. 2.

### **3.0 Policy**

#### **3.1 Routine inspection for storm water pollution prevention site compliance.**

- 3.1.1 Routine Inspection – No Inspection fee charge.
- 3.1.2 If a site is in non-compliance, the Engineering Services inspector will contact the responsible party to address issues to full compliance within 48 hours after notification.
- 3.1.3 The Engineering Services Inspector will log the results of the initial inspection in the appropriate City tracking spreadsheet/data base.

#### **3.2 Complaint inspection for storm water pollution prevention site compliance from the public or other entity.**

- 3.2.1 Initial Complaint Inspection – \$100 inspection fee charge if a site is in non-compliance. No inspection charge if a site is in compliance.
- 3.2.2 If a site is in non-compliance, the Engineering Services inspector will contact by e-mail and certified mail the responsible party to address issues to full compliance within 48 hours after notification.
- 3.2.3 The City's Public Services and Development Services Departments will be notified of this non-compliance.
- 3.2.4 The Engineering Services Inspector will log the results of the initial inspection in the appropriate City tracking spreadsheet/data base.



- 3.2.5** The Development Services Department will invoice the complaint inspection fee charge to the responsible party.
- 3.3** MS4 permit quarterly inspections for storm water pollution prevention site compliance sites covered by NPDES SWPPP permits.
- 3.3.1** Initial Quarterly Inspection – \$50 Inspection fee charge.
- 3.3.2** If a site is in non-compliance, the Engineering Services inspector will contact by e-mail and certified mail the NPDES Permit holder to address issues to full compliance on locations covered by the SWPPP within 48 hours after notification.
- 3.3.3** The City’s Development Services and Public Services Department will be notified of this non-compliance of the Quarterly inspection.
- 3.3.4** The Engineering Services Inspector will log the results of the initial quarterly inspection in the appropriate City tracking spreadsheet/data base.
- 3.3.5** The Development Service Department will invoice the quarterly inspection fee charges to the responsible party.
- 3.4** Routine, complaint and MS4 Permit quarterly re-inspections and enforcement of sites not in compliance after initial inspection.
- 3.4.1** 1st Re-inspection after initial Inspection – No re-inspection fee charge.
- A. If a site is in non-compliance after 48 hours of the initial inspection, the Engineering Services inspector will send a Notification of Violation (NOV) to the responsible party to address issues to full compliance within 48 hours after notification.
- B. A copy of the NOV and supporting documents will be sent to the Development Services and Public Services Departments.
- 3.4.2** 2nd Re-inspection after initial Inspection – \$500.00 re-inspection fee charge.
- A. If a site is in non-compliance after 48 hours of sending out the NOV, Engineering Services will provide Development Services, other applicable City staff and the responsible party(s) with a “Stop Work Order” for specific site addresses that have an active building permit or other work locations with violations.
- B. Development Services will send a “Stop Work Order” to all builders associated with the sites or lots in non-compliance. A “Stop Work Order” notice will be posted on specific site addresses that have an active building permit and other work locations that are in non-compliance. *A sample “Stop Work Order” notice is attached to this policy.*

**3.4.3** 3rd Re-inspection after initial Inspection – \$1000.00 re-inspection fee charge if a site is in non-compliance. No re-inspection charge if a site is in compliance.

- A. After a “Stop Work Order” has been provided for a site, the 3rd re-inspection will not be conducted until it is requested in writing by a letter or an e-mail from the responsible party to the City’s Engineering Services Department.
- B. If a specific site address or work location is in non-compliance after 30 days of the “Stop Work Order” notice, any applicable building permits and other city permits will be suspended or revoked per Chapter 8-2A-7 of the City Code until the site or lot is brought into compliance. If building or other permits are suspended or revoked by the City the applicant would be required re-apply for new permits and pay the associated fees before allowing to do further work.

**3.4.4** 4th and Subsequent Re-inspections After initial Inspection – \$1000.00 fee charge per re-inspection.

- A. Fourth and subsequent re-inspections will not be conducted until they are requested in writing by a letter or an e-mail from the responsible party to the City’s Engineering Services Department.

**3.4.5** The Engineering Services Inspector will log the results of the each re-inspection in the appropriate City tracking spreadsheet/data base.

**3.4.6** The Development Service Department will invoice the re-inspection fee charges to the responsible party.

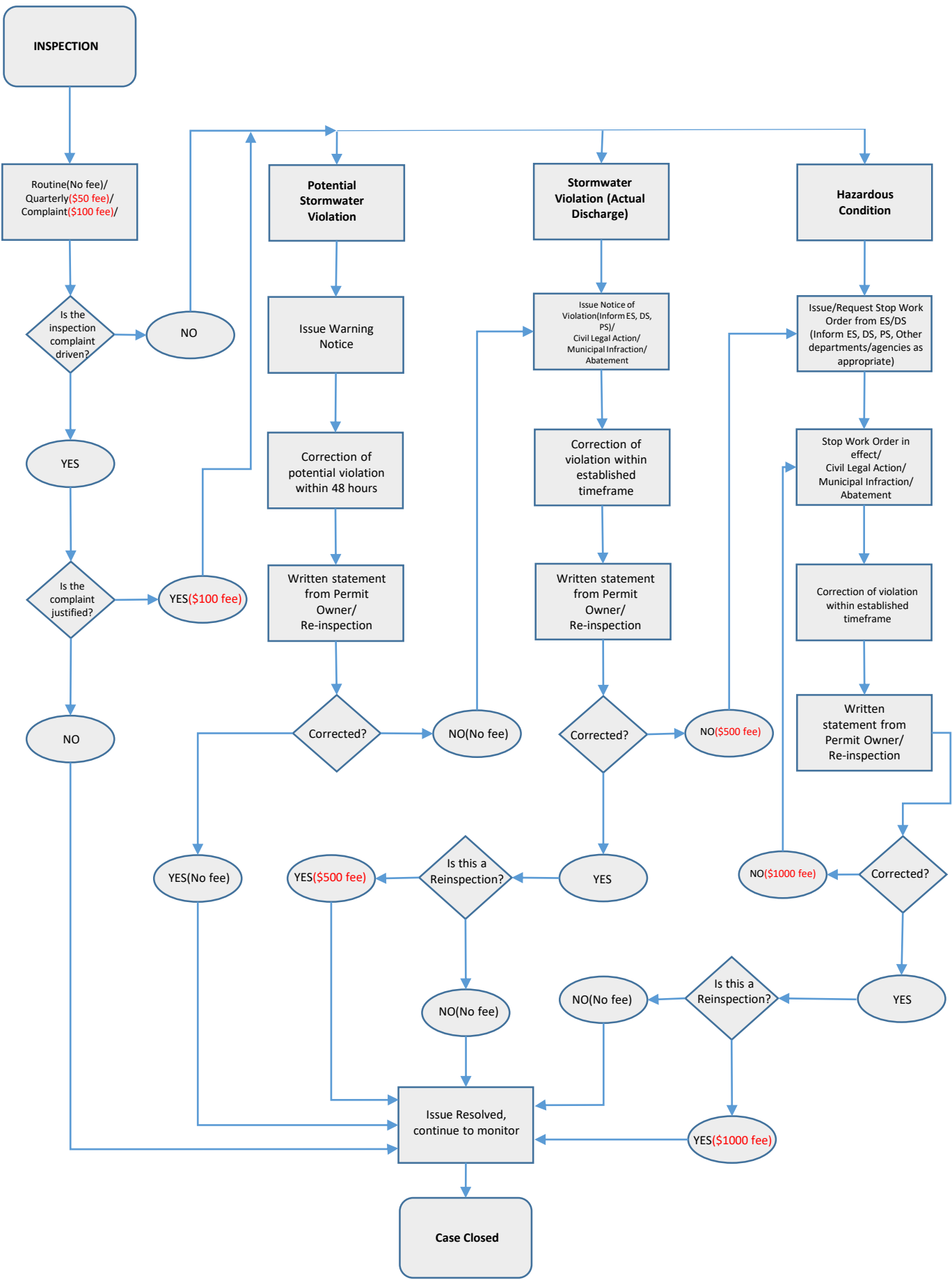
**4.0 Distribution**

**4.1** City Manager and all Department Directors.

Authorized by the City Manager/City Council effective \_\_\_\_\_ ;  
revised \_\_\_\_\_ ; last revised \_\_\_\_\_ .

City Manager

Date



2019 Proposed Changes to Stormwater Management Inspection Fees Resolution.			
	Description	Fee	Last Change (Approval Date)
<b>B.</b>	<b>Development Services and Engineering Services</b>		
XXVI.	<b>Erosion &amp; Sediment Control</b> Construction Site Visits		
a.	Routine Inspection	\$0.00	Resolution (04/29/2019)
b.	Complaint Inspection (Passed Compliance)	\$0.00 per Inspection	Resolution (04/29/2019)
c.	Complaint Inspection (Failed Compliance)	\$100.00 per Inspection	Resolution (04/29/2019)
d.	Quarterly Visits Per City's MS4 Permit Requirements	\$50.00 per visit	Resolution (04/29/2019)
c.	1st Re-Inspection (NOV Issued if Failed)	\$0.00	Resolution (04/29/2019)
d.	2nd Re-Inspection (Stop Work if Failed)	\$500.00	Resolution (04/29/2019)
e.	3rd Re-Inspection (Passed Compliance)	\$0.00	Resolution (04/29/2019)
f.	3rd Re-Inspection (Failed Compliance)	\$1,000.00	Resolution (04/29/2019)
g.	4 or More Re-Inspections	\$1,000 per Re-Inspection	Resolution (04/29/2019)

# ORDEN DE PARAR TRABAJO

**Ciudad de West Des Moines**

**Departamentos de Ingeniería y de Servicios de Desarrollo**

## AVISO

### Dirección del Lugar:

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La ciudad de West Des Moines ha emitido una orden parando trabajo en este sitio para las deficiencias en el control de erosión y sedimentos de acuerdo con el código de West Des Moines sección 8-6. El único trabajo permitido para continuar en este sitio es la corrección de las deficiencias de erosión y sedimentos descritas en el informe de notificación de infracción, que fue enviada a la parte responsable por correo electrónico y/o correo certificado.

Si estas deficiencias no son corregidas, o si trabajo es hecho en el sitio además del trabajo implicado con las deficiencias, la parte responsable puede ser sujeto a la revocación de sus permisos, una infracción municipal y/o ser multado.

El trabajo sólo puede reanudarse en este sitio después de la notificación por escrito de la Ciudad indicando que la Orden de Parar Trabajo ha sido eliminado.

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Rod VanGenderen  
Chief Building Official

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Fecha y Hora

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Jeff Nash  
Principal Engineer

**No Remueva Este Aviso Bajo Pena De Ley**

Para preguntas sobre esta orden de trabajo, llame al Departamento de Servicios de Desarrollo (515-222-3620) or Departamento de Ingeniería (515-222-3475).

# STOP WORK ORDER

City of West Des Moines

Engineering and Development Services Departments

## NOTICE

**Address:** \_\_\_\_\_

This address or site has been issued a Stop Work Order for erosion and sediment control deficiencies in accordance with West Des Moines Code Section 8-6. The only work allowed to continue on this site is the correction of the erosion and sediment deficiencies outlined in the Notice of Violation report, which was sent to the responsible party by e-mail and/or certified mail.

If the erosion and sediment control deficiencies are not corrected, or if any work is done on the site other than work involved with addressing the deficiencies, the responsible party may be subject to revocation of their permits, a municipal infraction and/or be fined.

Work may only resume at this site after written notification that the Stop Work Order has been removed is provided by the City.

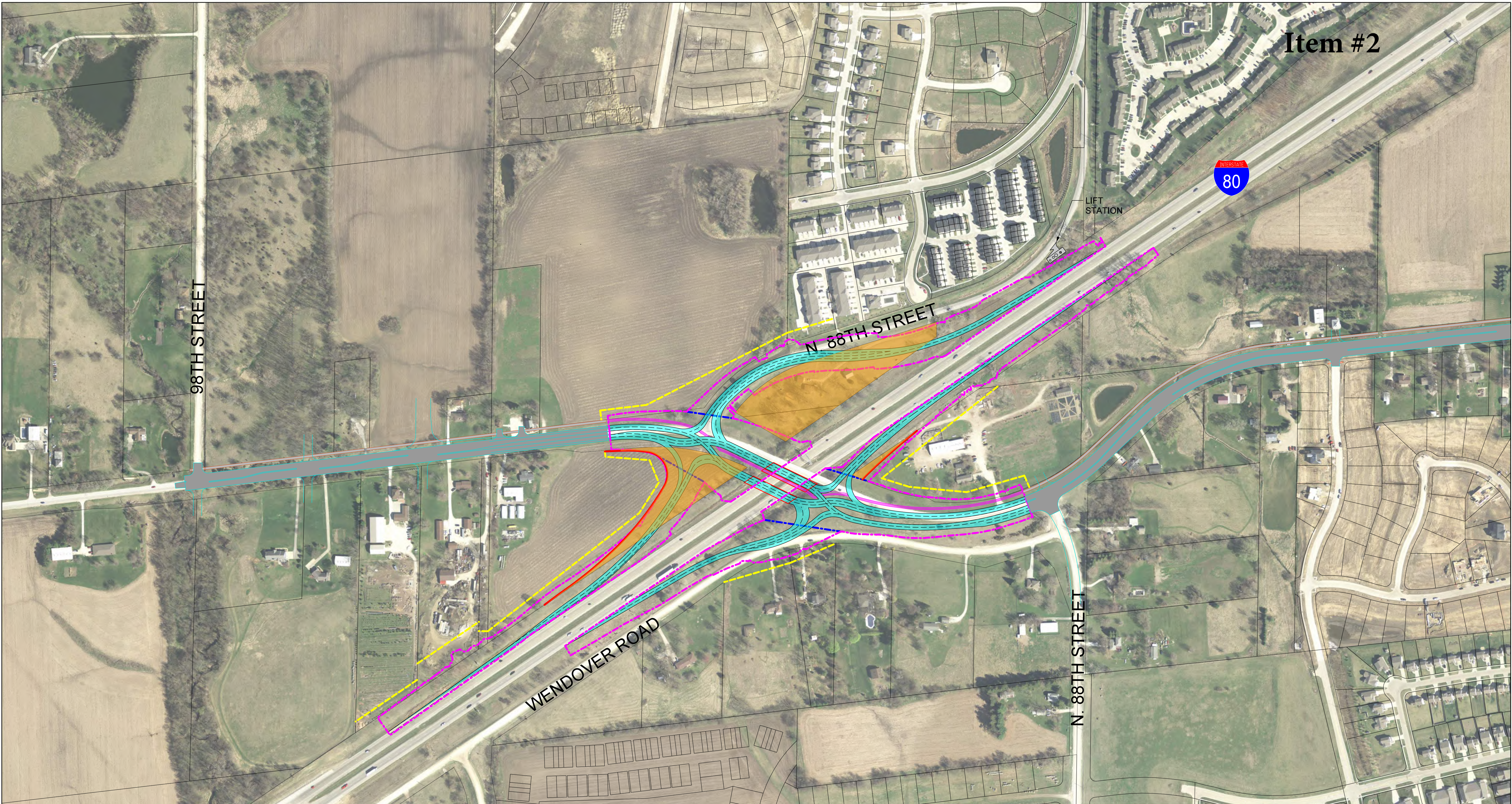
\_\_\_\_\_  
Rod VanGenderen  
Chief Building Official

\_\_\_\_\_  
Date and Time

\_\_\_\_\_  
Jeff Nash  
Principal Engineer

**Do Not Remove this notice under penalty of law.**


If you have questions about this Stop Work Order, please contact the West Des Moines Development Services Department (515-222-3620) or the Engineering Services Department (515-222-3475).



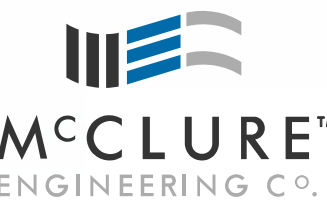
**LEGEND**

- PROPOSED ROW
- TEMPORARY EASEMENT
- GRADING LIMITS
- NON-RAMP GRADING LIMITS
- PROPOSED ROW

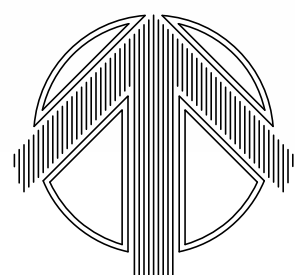
**ASHWORTH ROAD INTERCHANGE  
BRIDGE CONFIGURATION CONCEPT**  
WEST DES MOINES, IOWA



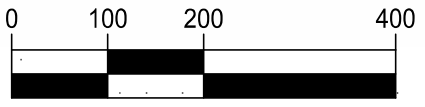
THE CITY OF  
WEST DES MOINES



McCLURE™  
ENGINEERING CO.



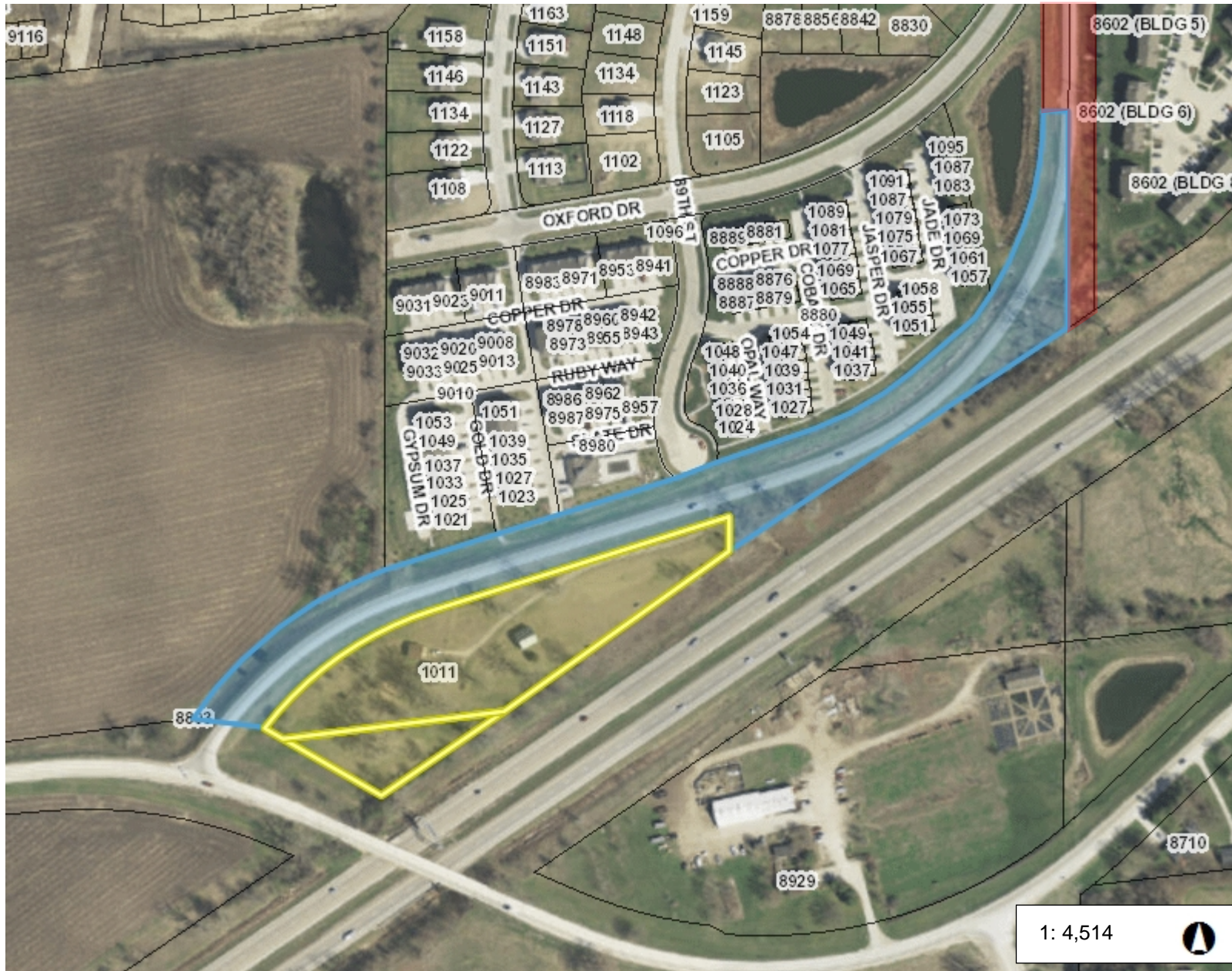
NORTH



0 100 200 400  
GRAPHIC SCALE

**FIGURE 14**

# 1011 88th Street



### Legend

- Addresses
- Corporate Limits
- Parcels

1: 4,514



752.3 0 376.17 752.3 Feet



# Item 3

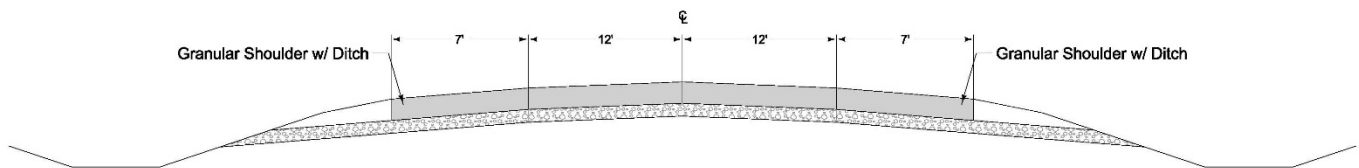


FULLER ROAD CONCEPT STUDY

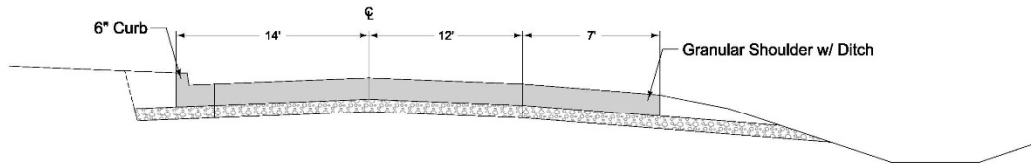
VICINITY MAP

## 2. EXISTING STREET CROSS SECTION AND DRAINAGE ISSUES:

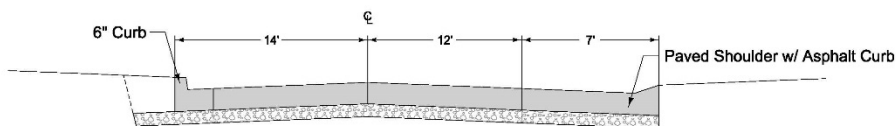
The existing roadway includes a curb and gutter section on the northwest side of the road with grate style intakes and longitudinal storm sewer running behind the back-of-curb. The southeast side of Fuller Road has a combination of urban and rural sections. The combinations include a paved shoulder with a curb section or a granular shoulder with a ditch section. The paved shoulder is asphalt with an asphalt curb. The existing shoulder was generally used for delivery trucks so two lanes of traffic were kept clear. The southeast side of the roadway contains no existing storm sewer. The section of Fuller Road to the southwest of Jordan Creek has a full rural typical section with limited storm sewer. The full rural section starts the intersection of South 19<sup>th</sup> Street and Fuller Road and continues east of Jordan Creek to the intersection of South 19<sup>th</sup> Street and Fuller Road. The asphalt shoulder with an asphalt curb starts at the intersection of South 19<sup>th</sup> Street and Fuller Road to the intersection of South 18<sup>th</sup> Street and Fuller Road. The granular shoulder with a ditch section starts at the intersection of South 18<sup>th</sup> Street and Fuller Road and goes through the intersection of South 16<sup>th</sup> Street and Fuller Road. Refer to the cross section below.



EXISTING CROSS SECTION - GRANULAR SHOULDER W/ DITCH



EXISTING CROSS SECTION - GRANULAR SHOULDER W/ DITCH



EXISTING CROSS SECTION - PAVED SHOULDER W/ CURB

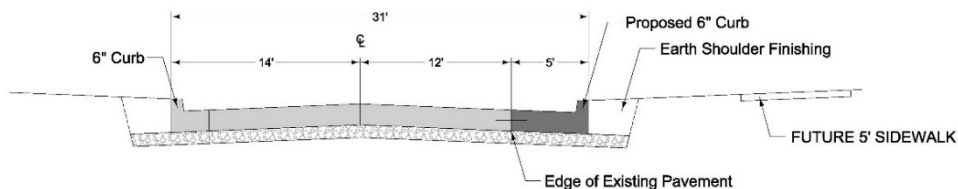
## 4. CONCEPT 1

Concept 1 includes installing storm sewer intakes, storm sewer cross runs, and a PCC curb and gutter section along the southeast side of the street. This concept will include either a finished roadway width of 31' or 37' back-of-curb to back-of-curb with a future sidewalk. The future sidewalk will have a minimum width of 5'. The future urban section will also include a 6' green space between the back-of-curb and face of sidewalk. The storm sewer intakes and cross runs would be on the southeast side of the road opposite of the existing intakes. Refer to the cross sections below.

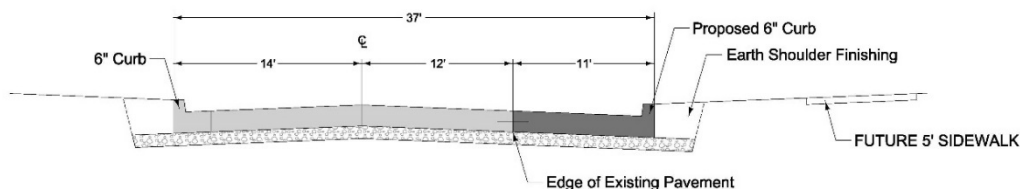
Due to the existing ditch and the grading needed to accommodate a future sidewalk, the area behind the sidewalk will need to be designed to ensure water does not pond and get trapped. This can be done with grading the existing area behind the future sidewalk to drain to the roadway. If the existing area cannot drain to the roadway, a series of area intakes will need to be installed in the low lying areas to collect any trapped runoff.

The 31'-wide urban section roadway with a 6' green space would have conflicts with the existing power poles along the southwest side. The 6' green space makes the sidewalk in-line with the existing power poles. This conflict can be addressed with reducing the green space distance to have the power poles on the front of the sidewalk. The sidewalk can also be moved behind the existing power poles. If the future sidewalk was moved behind the existing power poles, additional right-of-way would need to be acquired. The attached exhibit displays the future sidewalk with the 6' green space but the Order of Magnitude reflects the need for additional right-of-way if the sidewalk was moved behind the power poles. The 37' - wide urban section would conflict with the existing fire hydrant locations. Adding 11' of additional pavement would make the location of the fire hydrants inside of the curb line.

Both the 31'-wide and 37'-wide concepts will require additional right-of-way to be acquired. The 31'-wide urban section with a reduced green space concept will require a 5' temporary construction easement along with possible drainage easements for the area intakes behind the back of sidewalk. If the 31' curb and gutter section with the sidewalk moved behind the existing power poles will require 5' of permanent right-of-way, a 10' temporary construction easement, along with possible drainage easements for the area intakes. The 37'-wide urban section concept will require an additional 5' of permanent right-of-way, a 5' of temporary construction easement, and possible drainage easements for the area intakes behind the back of sidewalk. The range of probable project cost, for concept 1 is **\$780,000 to \$860,000**. Project costs do not include possible utility relocations.

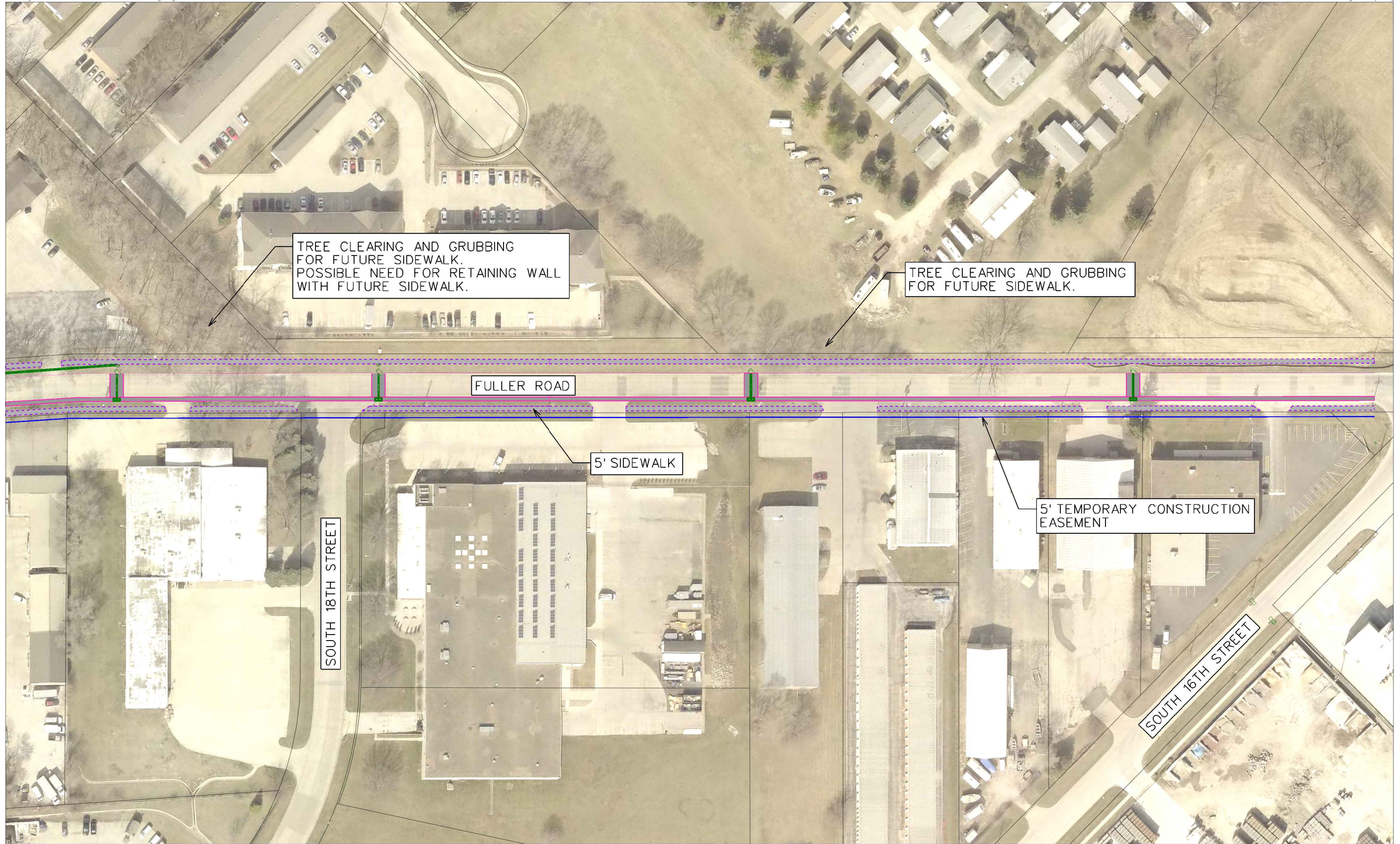


PROPOSED 31' CURB AND GUTTER SECTION

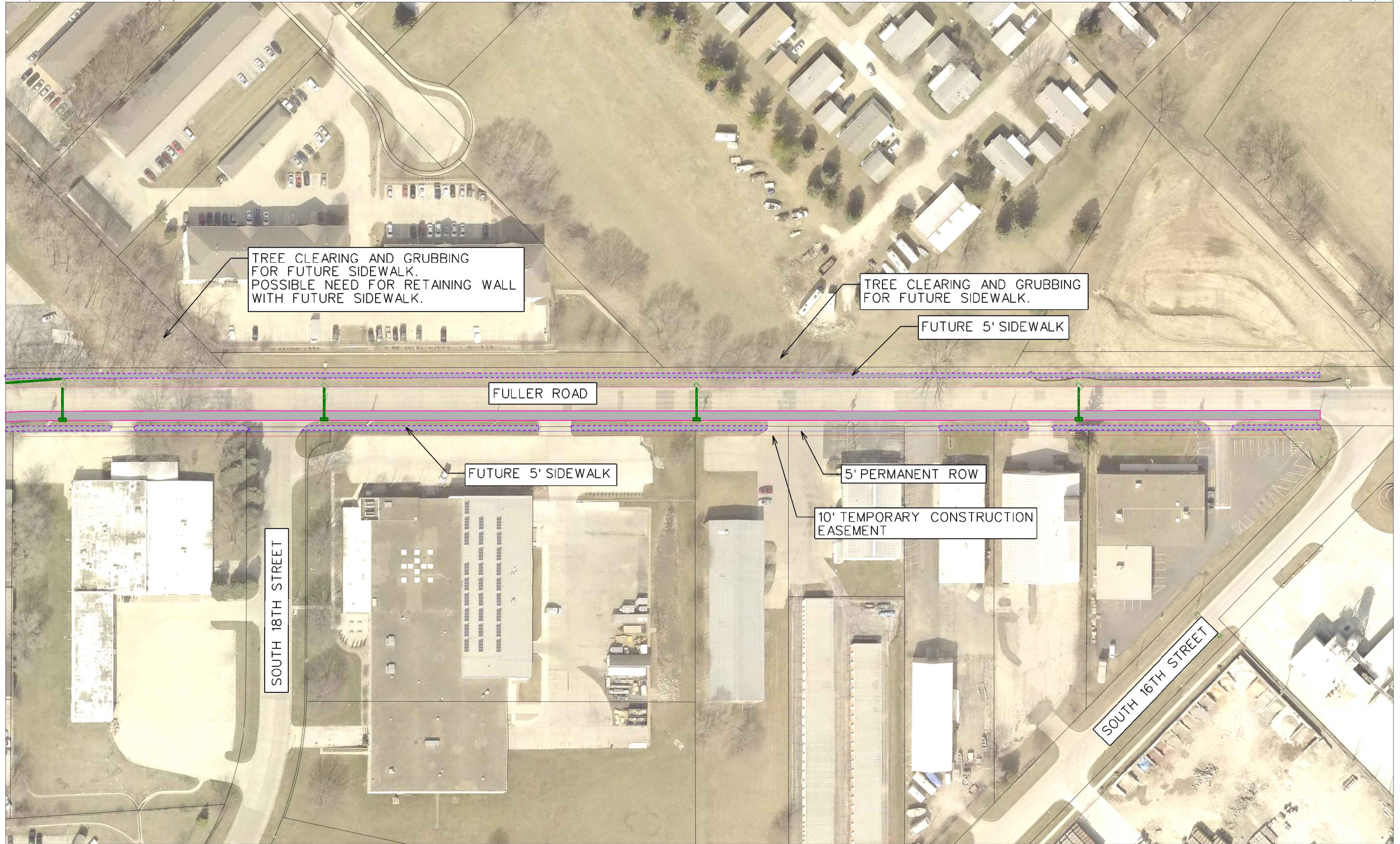


PROPOSED 37' CURB AND GUTTER SECTION





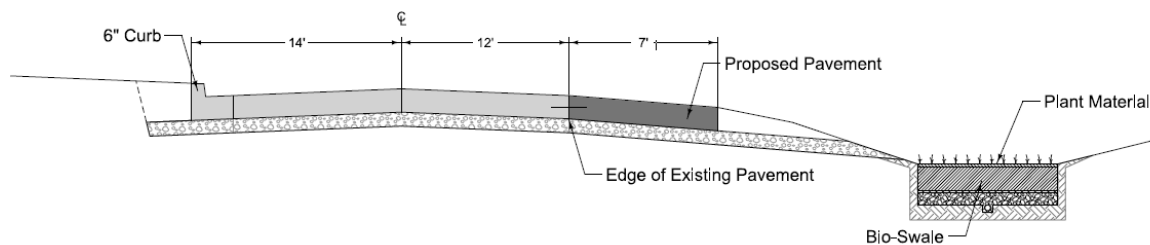




## 5. CONCEPT 2

Concept 2 includes constructing a PCC shoulder the length of the study area with a bio-swale on the southeast side of the road. The proposed paved shoulder may be 4' or 7' wide (to match existing). The bio-swale will feature a combination of bio-retention mulch, bio-retention topsoil, native soil, aggregate, and plant material. The bio-swale will be approximately 3' in depth, 5' in width, and drain through a 6" perforated subdrain that will outlet into the flared end section at the intersection of Fuller Road and South 16th Street. Refer to the cross section below.

Construction of the bio-swale will require additional right-of-way. An additional 10' of permanent right-of-way and a 5' temporary construction easement will be required. The permanent right-of-way will be used to construct the backslope of the bio-swale as well as to perform any required maintenance. With the construction of the bio-swale, sidewalk will not be able to be constructed due to lack of available space. In addition to the additional right-of-way, utilities will be relocated to avoid conflicts with the bio-swale. The utilities that would be in conflict will include overhead-electric poles, fire hydrants, and potentially water main. Additional information regarding the location and depths of any unknown utilities will need to be obtained to reduce potential conflicts. Refer to the cross section below. The order of magnitude project cost for concept 2 is approximately **\$810,000**. This figure does not include any possible utility relocation.



SHOULDER & BIO-SWALE SECTION





