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City of Hiawatha

Engineering Department

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To: **Mayor and City Council** **Date:** **December 12, 2018**

From: John C Bender PE, City Engineer

Re: **Statewide Urban Design and Specifications.**

Description: **Adopting the 2018 SUDAS with Supplemental Specifications**

Report:

Engineering has been reviewing the 2018 SUDAS specifications that last few months. We are in the process of updating our construction specifications from the Cedar Rapids Metro Standards adopted back in 2006, to the 2018 SUDAS specifications. Marion moved to SUDAS a couple years ago with Cedar Rapids moving to the new standard just last month.

During the review process, we have made a number of revisions to the current standard to better fit the type of construction process we use. Both Marion and Cedar Rapids have made similar changes to the 2018 specification.

The process would be to set a public hearing to change the required code chapters that reflect the current Metro Standard to reflect the 2018 SUDAS program. The code changes have been identified in Pat Parsley's November 29, 2018 memo. Attached to this memo is a copy of the "General Supplemental Specifications to SUDAS" that will need to be included in the public hearing.

The entire SUDAS program can be found at www.iowasudas.org. There is very little difference between the current Metro Standard and the proposed SUDAS Standard. One major change is the design width of the standard city street. The current standard is 28 feet; the new standard is 26 feet. Because of the reduction, parking will be removed from one side of every street for better emergency access. Both Cedar Rapids and Marion have adopted this new standard.

These specifications will be adopted by reference along with the attached supplemental specifications. The intent is to adopt the new specifications effective January 1 of 2019.

Memorandum

To: Hiawatha City Council
Cc: Kim Downs, City Administrator
John Bender, City Engineer

From: Patrick Parsley

Date: November 29, 2018

Re: Amend various city codes to reference "engineering standards"

Background:

The City of Hiawatha is considering the adoption of new standards and specifications for construction of public projects and for developments. The current city codes reference these standards in several locations making it necessary to change the language each time the standards are modified.

This resolution corrects the problem by referencing the location authorizing the adoption of engineering standards for the City of Hiawatha instead of referencing the standard in each code section. This will:

- Reduce the potential conflict in the Code if a reference is not corrected
- Streamline the future engineering standard adoptions

Code section 165.58 which authorizes the adoption of standards and specifications is attached along with the modifications to the various code sections affected. The corrections are strictly procedural and contain no changes to code requirements or enforcement policies.

Recommendation:

Community Development is recommending changes in conjunction with the adoption of the newest engineering standards for the City of Hiawatha. Affected Codes include:

- Chapter 115: Utility Lines
- Chapter 135: Street Use and Maintenance
- Chapter 160: Fire Code
- Chapter 165 Unified Development Code
- Chapter 167: Filling, Grading and Erosion Control Code

165.58 CONSTRUCTION STANDARDS FOR IMPROVEMENTS. In addition to the standards set forth in this chapter, the City Engineer shall from time to time prepare, and the Council shall from time to time adopt by resolution, technical standards for public improvements. Such technical standards for public improvements shall contain the minimum acceptable specifications for the construction of public improvements. Such technical standards may vary for classes of improvements, and the extent and character of the area served by the improvements. Upon adoption by the Council by resolution, such technical standards for the public improvements shall have such force and effect as if they were fully set forth herein.

CHAPTER 115

UTILITY LINES

115.07 QUALITY REGULATION. All persons or entities installing, constructing, performing maintenance, reconstructing or repairing any utility lines or associated structures pursuant to a City issued permit agree to perform the work in compliance with all federal and State laws, all City codes, specifications, and ordinances, and the ~~Metro Area~~ Engineering Standards ~~Standard Specifications~~ as adopted by resolution by the Hiawatha City Council in accordance with Hiawatha Code Section 165.58 ~~for Public Improvement, 2003 ed~~. Furthermore, Underground Facilities Information, *Code of Iowa* Chapter 480, is made a part of this policy. The law requires persons excavating to contact the one call system at least 48 hours prior to any excavation. Iowa One Call can be reached at 1-800-292-8989 or 811.

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CHAPTER 135

STREET USE AND MAINTENANCE

135.09 EXCAVATIONS. No person shall dig, excavate, or in any manner disturb any street, parking or alley except in accordance with the following:

4. Traffic Control:

A. Applicant shall be responsible for all traffic control safety measures required for work in the right-of-way in accordance with the applicable Engineering Standards as ~~Metro Standards~~ adopted by resolution by the Hiawatha City Council in accordance with Hiawatha Code Section 165.58 and Traffic Control Laws for the State of Iowa.

B. For work that includes a right-of-way closure the applicant shall also:

(1) Apply for the permit at least one week prior to the anticipated closure. Application for the permit is not considered the notification to Community Development.

(2) Notify Community Development of the dates of road closure at least one week before road closure.

(3) Notify adjacent property owners and residences three days in advance of the closure.

(4) Install all necessary traffic detour and warning signage three days in advance of the work. Signs shall be installed in accordance with the applicable Metro Standards.

(5) Remove all traffic signage when the right-of-way is reopened.....

16. Quality Regulation. All persons or entities installing, constructing, performing maintenance, reconstructing or repairing any utility lines or associated structures pursuant to a City issued permit agree to perform the work in compliance with all Federal and State laws, all Hiawatha City codes, specification, and ordinances, and the Engineering Standards ~~Metro Area Standard Specifications~~adopted by resolution by the Hiawatha City Council in accordance with Hiawatha Code Section 165.58. ~~for Public Improvement, 2003 ed.~~

CHAPTER 160

FIRE CODE

160.16 FIRE HYDRANT INSTALLATION. The Hiawatha Fire Code is hereby amended by adding the following sections reference fire hydrant installation to the *International Fire Code*, 2018 Edition. The sections shall read as follows:

507.5.7 Fire hydrant Installation. Fire hydrants within the City of Hiawatha shall be installed in accordance with the Hiawatha Water Department Rules and Regulations, the applicable Engineering Standards ~~Metro Standards~~adopted by resolution by the Hiawatha City Council in accordance with Hiawatha Code Section 165.58 and with regard to the following.

CHAPTER 165

UNIFIED DEVELOPMENT CODE

165.47 LANDSCAPING AND SHADING REGULATIONS. The purpose of this section is to promote and protect the safety and welfare of the public through requirements for landscaping and shading which prevent soil erosion, improve air and water quality and enhance and preserve the beauty and appearance of the environment.....

5. Subdivision Landscape and Shade Requirements.

C. Shading.

(1) Along both sides of all newly created streets in all R-7, C-ORS, C-2 and C-R Zone Districts that are constructed in accordance with the public street standards set forth in Section 165.58~~(1) and the Cedar Rapids Metropolitan Area Engineering Design Standards~~ there shall either be planted or retained sufficient trees so that between the paved portion of the street and a line running parallel to and 50 feet from the centerline of the street, there is for every 40 feet of street frontage at least an average of one deciduous tree that has or will have when fully mature a trunk at least 12 inches in diameter. When trees are planted pursuant to this section, the developer shall choose trees that meet the standards set forth in Appendix A.

165.53 MINIMUM IMPROVEMENTS. The improvements set forth below shall be considered the minimum improvements necessary to protect the public health, safety, and welfare. Design of the improvements shall be in accordance with the ~~Cedar Rapids Metropolitan Area Engineering Design Standards~~ Engineering Standards adopted by resolution by the Hiawatha City Council in accordance with Hiawatha Code Section 165.58.

165.96 DEFINITIONS. The following definitions shall govern the interpretation of the regulations of the City of Hiawatha Unified Development Code.

39. "City Standards" means the design of improvements shall be in accordance with the ~~Cedar Rapids Metropolitan Area Engineering Design Standards~~Engineering Standards as adopted by Resolution of the Hiawatha City Council in accordance with Hiawatha Code Section 165.58.

CHAPTER 167

FILLING, GRADING, AND EROSION CONTROL CODE

167.08 CONSTRUCTION, INTERPRETATION AND DEFINITIONS. Wherever used in this chapter the terms listed below will have the meanings indicated. Words using the present tense shall include the future; the singular shall include the plural; the plural shall include the singular; the masculine gender shall include the feminine; the term "shall" is always mandatory, and the term "may" is permissive.

9. "Design Standards Manual" means the Engineering Standards adopted by Resolution of the Hiawatha City Council in accordance with Hiawatha Code Section 165.58. ~~latest edition of the *Cedar Rapids Metropolitan Area Engineering Design Standards*, as approved by the City Council.~~

10. "Standard Specifications" means the Engineering Standards adopted by Resolution of the Hiawatha City Council in accordance with Hiawatha Code Section 165.58.

~~30. means the latest edition of the *Hiawatha Metropolitan Area Standard Specifications for Public Improvements*, as approved by the City Council.~~

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Exhibit "A"

SUDAS

Statewide Urban Design and Specifications Program

Iowa

SUDAS

STATEWIDE URBAN DESIGN AND SPECIFICATIONS

CITY OF HIAWATHA
GENERAL SUPPLEMENTAL SPECIFICATIONS TO SUDAS STANDARD SPECIFICATIONS, 2018 EDITION

These Supplemental Specifications amend the 2018 Statewide Urban Design and Standards (SUDAS).

DIVISION 1 – General Provisions and Covenants

Section 1040 - Scope of Work

1.06 Increase or Decrease of Work

Delete Item 10.6 B. and replace with the following: "B. Unless such alterations, increases or decreases materially change the character of the work to be performed or the cost thereof, the altered work shall be paid for at the same unit prices as other parts of the work. Quantity changes amounting to 25% or less of the total bid for an item shall not affect the unit price of that item. If, however, the character of the work or the unit costs thereof are materially changed, due to unforeseen events, an allowance shall be made on such basis as may have been agreed to in advance of the performance of the work. "

1.10 Disputed Claims for Extra Compensation

Add item A. 6 as follows: "6. Monetary compensation will not be made for time necessary to resolve disputed claims issues."

1.11 Delays Caused by the Jurisdiction

Add the following paragraph: "The Engineer shall have a minimum of 5 working days upon receipt of written request by the Contractor for clarification of issues or claims for extra compensation to respond. The Contractor shall not be entitled to delay claims during this period."

Section 1050- Control of Work

1.10 Line and Grade Stakes

Add item D. as follows: "D. On privately contracted projects, the Owner shall hire a Licensed Surveyor per Section 11010 for all survey work."

2.13 Borrow and Waste Sites

Add item C. as follows: "The Contractor is required to obtain written authorization for use from the owner for all borrow and waste sites secured for use. A copy of the authorization shall be submitted to the Engineer prior to use of the site. Upon completion of the usage and restoration of the site, the Contractor shall also obtain written acceptance from the owner and submit a copy to the Engineer."

Section 1080 – Prosecution and Progress

1.03 Work Progress and Schedule

Delete item B. and replace with the following: "After being awarded the contact, the Contractor shall immediately prepare and submit to the Engineer for review and approval a

progress schedule that will insure the completion of the project within the time specified. Said schedule shall include anticipated controlling items of work, contract specified milestones, and days and/or dates for starting and completing each stage of the work. The schedule shall be submitted to the Engineer prior to scheduling the preconstruction conference. Adequate equipment and forces shall be make available the Contractor to start work immediately upon the Notice to Proceed and to prosecute work to completion according to the schedule and within the time specified."

1.04 Preconstruction Conference

Delete this paragraph and replace with the following: "A preconstruction conference shall be scheduled upon receipt of the work progress schedule from the Contractor. The Contractor and intended subcontractors shall attend and participate in this conference. The Engineer will invite representatives of railroads, utilities and others having responsibilities or interests in the work."

1.07 Work on Sundays or Legal Holidays

Add item C. as follows: "C. Work on Saturdays, except for contracts specifying mandatory six-day work weeks, Sundays and City holidays requires written authorization by the Engineer. A written request shall be submitted by the Contractor a minimum of two working days in advance of the days being requested to work. Inspection fees will be charged at the discretion of the Engineer. Cancellation of the scheduled work after approval may result in charges to the Contractor at a minimum of three hours of inspection time. Working day charges will be made for working day and calendar day contracts.

1.09 Extension of Time

B. Request for Extension of Time

1. Weather. Add item a. as follows: "a. Requests for extension of time due to excess precipitation will be considered on calendar day projects as follows:
Precipitation levels in excess of 10% of the average monthly rainfall as recorded by the National Weather Service over the last ten years, may be considered in an extension of contract time. The Contractor may request an extension of one calendar day for each 10% of precipitation above 110% of the monthly average (rounded up). Written requests for such time extensions shall be submitted to the Engineer within fourteen (14) calendar days following the end of each month. No consideration will be made for time extensions due to excess precipitation if written notification is not received within this time frame.

Section 1090 – Measurement and Payment

1.04 Payment for Change Orders

Add item B.4. as follows: "4. Extra work by a Subcontractor: The prime Contractor mark-up on extra work performed by a Subcontractor shall be limited to one tier of Subcontractors and shall be a maximum of 10 % on the first $50,000 with a $100.00 minimum, and 5% on the portion of extra work in excess of $50,000."

DIVISION 2 - Earthwork

Section 2010- Earthwork, Subgrade and Subbase

1.07 Special Requirements

Add the following: "No earthwork shall proceed with or upon frozen materials."

1.08 Measurement and Payment

D. Topsoil

1. On-site Topsoil, 2. Compost-amended Topsoil, 3. Off-Site Topsoil

Delete measurement and payment for each item and replace with the following:

"**a. Measurement:** Measurement will be the plan quantity in cubic yards without final field measurement. Adjustments may be made to the plan quantities if agreed to by both the Engineer and Contractor.

b. Payment: Payment will be at the unit price per cubic yard.

c. Includes: Work includes but is not limited to, stripping, excavating, furnishing, hauling, placing and incorporating materials. Overhaul will not be paid. "

L. Compaction Testing:

Delete item 1 and item 2 and replace with the following:

"1. The Contractor will be responsible for compaction testing unless otherwise specified in the contract documents.

2. Testing shall be performed by an independent testing laboratory hired by the Contractor. Payment will be incidental to related bid items. "

2.04 Foundation Materials

D. Subbase

1. Special Backfill Delete item 1-Special Backfill in its entirety.

3.02 Stripping, Salvaging, Spreading Topsoil

C. Topsoil Spreading

Delete Item 2. and replace with the following: "Place topsoil at least 4 inches deep; smooth and finish grade according to the contract documents. If topsoil is amended with compost, thoroughly blend compost with onsite topsoil at the rate specified in Section 2010, 2.01."

3.06 Subgrade Preparation

A. Uniform Composition Add the following: "A disk or plow shall be used for scarification of materials for drying. If conditions do not allow enough space for a disk or plow, the material shall be scarified by other methods as approved by the Engineer."

2. Subgrade Compaction in Cut Sections

Delete items b. and c. in their entirety and replace with the following:

"b. Disk, scarify, mix and recompact the next 6 inches of subgrade.

c. Replace, disk, mix and compact the top 6 inches of subgrade."

DIVISION 3 - Trench and Trenchless Excavation

Section 3010 Trench Excavation and Backfill

1.08 Measurement and Payment

B. Rock Excavation

1. Measurement: Delete item 1 and replace with the following: "Measurement will be by cubic yards of rock removed to the limits of the trench bedding and backfill zones.

DIVISION 4 - Sewers and Drains

Section 4010 Sanitary Sewers

1.08 H. Removal of Sanitary Sewer

3. Includes: Delete item 3 and replace with the following: "Unit price includes, but is not limited to, removal, disposal, capping (if specified), and backfilling of pipe."

2.01 Sanitary Sewer (Gravity Mains)

Delete the following items:

A.1 Unless SDR 35 is specified

A.2b SDR 35

C. Corrugated Polyvinyl Pipe (PVC) 8 inch to 36 inch

D. Closed Profile Polyvinyl Pipe (PVC) 21 inch to 36 inch.

I. Double Walled Polypropylene Pipe 12 inch to 30 inch.

J. Triple Walled Polypropylene Pipe 30 inch to 36 inch.

2.01 B. Solid Wall Polyvinyl Chloride Pipe (PVC) 18 inch to 27 inch.

Delete Items 1 and 2 and replace with the following: "1. Comply with ASTM D 3034, SDR 26. 2. Pipe stiffness per ASTM D 2412, 115 psi. "

Add Item 2.01 K. as follows:

"**2.01 K. Polyvinyl Chloride Pipe (PVC) 8 inch to 24 inch**

1. Comply with AWWA C900.
2. Minimum wall thickness: DR 18.
3. Joint type: Certa-Lok ®or approved equal."

2.02 Sanitary Sewer Force Mains

B. Polyvinyl Chloride Pipe (PVC): Comply with the requirements in Section 2.01 K. for PVC pipe. Provide restrained joints where specified.

2.04 Sanitary Sewer Services

Add: All service connections to main shall be wye fittings or saddles.

3.02 Gravity Sewer Installation

A. General Add item 8 as follows: "Construct waterstops at nominal 800 foot intervals or as directed in the contract documents. Waterstops shall be constructed per Figure 310.105."

3.06 Sanitary Sewer Service Stubs

Add the following to item B.: "All service connections to sewer mains shall be with factory wyes".

Section 4020 Storm Sewers

1.08 Measurement and Payment

C. Removal of Storm Sewer

3. Includes Delete item 3 and replace with the following: "Unit price includes, but is not limited to, removal, disposal, capping (if specified), and backfilling of pipe."

Section 4030 Pipe Culverts

2.01 Pipe Culverts

A. Roadway Pipe Culverts Delete the first sentence and replace with the following: "All storm sewer pipe materials specified for use in the right-of-way in Section 4020 may be used within the right-of-way as roadway pipe culvert subject to approval of the Engineer."

B. Entrance Pipe Culverts Delete the following items:

5. Corrugated Metal Pipe (CMP)
6. Spiral Rib Pipe
7. Coated Corrugated Metal Pipe
8. Corrugated Metal Arch Pipe

C. Structural Plate Culverts Delete this item.

D. Aluminum Structural Plate Culverts Delete this item.

3.01 Pipe Culvert Installation

A. Trenched Delete item 2 and replace with the following: "Culvert pipe installed in the embankment shall be Reinforced Concrete Pipe (circular, arched and elliptical) meeting the specifications of Iowa DOT Specification Section 2416."

Section 4040 Subdrains and Footing Drain Collectors

2.02 Type 1 Subdrains (Longitudinal Subdrain)

D. Corrugated Polyethylene Tubing and Fittings (Corrugated PE) Delete this item.

2.06 Subdrain or Footing Drain Cleanouts

B. Type B Cleanouts

2. Polyvinyl Chloride Delete this item.

Section 4050 Pipe Rehabilitation

1.08 Measurement and Payment

Add the following: "General. By-passing sewage as necessary is incidental to related bid items unless otherwise specified.

Add the following:

"**1.08. D. Trimming of Protruding Sanitary Sewer Services**

1. **Measurement:** Each sanitary sewer service with ½ inch or greater protrusion into the sanitary sewer main which is trimmed will be counted.
2. **Payment:** Payment will be made at the unit price for each service trimmed.
3. **Includes:** Unit price includes but is not limited to identification of services protruding ½ inch or greater into the sewer main and trimming.

Section 4060 Cleaning, Inspection and Testing of Sewers

3.01 Cleaning: Add the following to item A: "A root saw or other approved means may be used to remove roots. Use of a flail-type device to trim protruding services or remove roots is prohibited. "

3.03 Video Inspection: Add the following to item 3. to C. Inspection Reporting:

" **3.02. C.3.** Written report shall be on forms provided by the Engineer. Obtain structure identification references from the Engineer. "

3.04 Sanitary Sewer Leakage Testing: Add the following statement: "If not specified, testing shall be per the exfiltration method. "

DIVISION 5 - Water Mains and Appurtenances Division 5 as amended by City of Hiawatha Standard Specifications Chapter 4 for Water Mains

DIVISION 6 -Structures for Sanitary and Storm Sewers

Section 6010 Structures for Sanitary and Storm Sewers

1.08 Measurement and Payment

Delete Item 1.08 D Casting Extension Rings in its entirety.

2.10 Castings (Ring, Cover, Grate, and Extensions)

C.2. Intakes Delete item b. and replace with the following: "b. Castings shall include the message "DUMP NO WASTE, DRAINS TO RIVER" with a "fish" symbol."

DIVISION 7 - Streets and Related Work

Section 7010 Portland Cement Concrete Pavement

1.05 Delivery, Storage, Handling, and Salvaging

Add the following item:

"**E. Ready- Mix Concrete** Ready-mix concrete may be used only if the producer is approved per the IDOT Ready Mix Concrete Producer Program. Verification of approval will be required. "

1.07 Special Requirements. Add the following:

"A. Contractor shall provide a minimum of 24-hour advance notice (excluding weekends and

holidays) to the Engineer for pavement pours.
B. Contractor shall notify Engineer of pavement joint sawing operations which must be performed during the Hiawatha Noise Ordinance period of 10:00 pm -7:00 am. "

1.08 Measurement and Payment

A. PCC Pavement

Delete item 3. and replace with the following: "Unit price includes, but is not limited to, final trimming of subgrade or subbase, integral curb, bars and reinforcement, joints and sealing, surface curing, safety fencing, concrete for rigid headers, boxouts for fixtures, and pavement smoothness testing."

3.02 Pavement Construction.

Add the following:

"**3.02 E. Utility Crossing Reinforcement:** When underground utilities cross the pavement with less than 5 feet of cover between the top of the utility pipe and bottom of the proposed pavement, or when specified in the contract documents, reinforcement will be required. Reinforcement shall be #5 epoxy coated bars, 15 foot lengths, placed at 18 inch centers parallel to the centerline of the pavement, centered over the utility pipe. Bars shall be firmly secured on anchored chair supports.

3.04 PAVEMENT PROTECTION

A. Weather Conditions

"B. When cold weather protection is required it shall be paid per Iowa Department of Transportation Standard Specifications for Highway and Bridge Construction Section 2301.05 Part K. Heating Water for Concrete Mix shall be $2.00 per CY if ordered by the Engineer and under the same conditions of 2301.05 Part K. If Contractor elects to do work without Engineer direction no payment will be made for cold weather protection"

C. Protection From Traffic

"4. Minimum Cure Time: Regardless of maturity method TTF value achieved, no PCC pavement shall have loadings applied to it, including but not limited to a paving machine, other than saw and sealing trucks until a minimum of 72 hours after pavement of a continuous pour was placed."

3.07 Quality Control Add the following:

"3.08 D. 5. Core samples will be required if deficiencies are determined in concrete yields or thickness deficiencies are suspected by the Engineer.

Section 7030 Sidewalks, Shared Use Paths, and Driveways

1.08 Measurement and Payment

Delete Item 1.08 F Brick Sidewalk in its entirety.

2.01 Portland Cement Concrete

Delete Item A and replace with the following: "Class C concrete with materials complying with Section 7010. Use coarse aggregate of Class 2 durability or better."

2.03 Brick Pavers Delete this item in its entirety.

3.04 PCC Sidewalks, Shared Use Paths, and Driveways

F. Jointing

2. Transverse Contraction Joints: Add "General: Construct a ½ inch expansion joint every 75 feet or at nearest joint for all PCC sidewalks and shared use paths."

4. Isolation Joints: Delete item b. and replace with the following: "For a sidewalk constructed with a driveway, install an isolation joint on all sides of the sidewalk through the driveway."

5. Joint Sealing: Delete item b and replace with the following.: **"**All expansion and isolation joints shall be sealed. Trim preformed joint material to ½ inch below the concrete surface. Ensure the joint is clean and dry. Install joint sealant per manufacturer's recommendations."

Section 7040 Pavement Rehabilitation

1.01 Section Includes: Add item I. as follows: "I. Crack and Seating PCC Pavement.

1.08 Measurement and Payment:

Add item L. as follows:

"L. Crack and Seating PCC Pavement

1. Measurement: Measurement will be in square yards for area cracked and seated. Curb and gutter sections separated from pavement by full depth saw cuts will not be included.
2. Payment: Payment will be made at the unit price per square yard for cracked and seated PCC pavement.
3. Includes: Unit price includes, but is not limited to, full depth saw cutting at limits as described on plans, removal and disposal of debris, and furnishing and application of water as necessary."

2.01 Materials

Add section **3.11 Crack and Seating PCC Pavement** as follows:

"3.11 Crack and Seating PCC Pavement

A. Before cracking, remove all asphalt and other bituminous material existing on the pavement surface from the area to be cracked. Removal of full depth HMA patches is not required. Remove existing joint sealers.

B. Locate all utilities within affected pavement areas. Saw full depth along perimeter of existing utility boxouts and create boxouts around utility fixtures to be separated from pavement.

C. Separate curb and gutter sections from pavement at distance designated with full depth saw cut.

D. Crack pavement with equipment capable of producing desired cracking pattern by providing a broad striking surface. Do not use equipment that punches holes in the

pavement or results in excessing spalling of otherwise sound sections. A blade or spade type breaker is recommended.

1. Crack pavement to produce full depth, transverse hairline cracks at a nominal spacing of 1 ½ - 3 feet. Avoid inducing cracks closer than 2 ½ feet from an existing crack or joint or deteriorated concrete. Prevent the formation of a continuous longitudinal crack.
2. A section of approximately 100 feet in length shall be designated as a test section in which varying energy and striking patterns of the breaker are applied to determine a satisfactory cracking pattern. The approved method shall be used for the remainder of the project, unless the Engineer determines that a satisfactory pattern is no longer being produced.
3. Following cracking of the test section, apply water to dampen the pavement to enhance the visual determination of the cracking pattern. Water shall be applied as directed by the Engineer during cracking operations to verify that the specified cracking pattern is being maintained.
4. Do not operated cracking equipment on a bridge or within 3 feet of a fixed object.

E. Seat the cracked pavement by rolling with a pneumatic rubber tired roller.

1. Roller shall have four rubber tires, equally spaced across the full width and mounted in line on a rigid steel frame such that all wheels carry equal loads regardless of surface irregularities. Roller tires shall be capable of satisfactory operation at a minimum inflation pressure of 100 psi. Tires may contain liquid.
2. Roller shall have a weight body suitable for ballasting to a gross load of 50 tons and ballast shall allow gross roller weight to be readily determined and controlled to maintain a gross roller weight of 50 tons.
3. Roller shall be weighted to complete seating on one pass to provide aggregate Interlock at the cracks with minimal damage.

F. After Engineer's approval of seating, pavement surface shall be cleaned of loose material by hand tools, brooming and/or light air blasting. The Engineer will determine if patching is necessary prior to HMA resurfacing.

G. HMA resurfacing shall be per SUDAS Section 7020.

Section 8020 Pavement Markings

1.07 Special Requirements Add item as follows:

"Thermoplastic reflectorized pavement markings and installation shall be warranted to the Owner against peeling, chipping, flaking, delamination, and shoving for a period of one year. Thermoplastic material shall be accepted on the basis of sampling and inspection at the place of manufacture or in warehouse lots as determined by the Engineer. In addition, all samples shall be accompanied with the manufacturer's certified identification of the binder formulation. Batch size for testing shall not be less than 3000 lbs. unless the total order is less than that amount. Type III primers used for installation of thermoplastic pavement markings will be subject to approval by the Engineer."

1.08 Measurement and Payment

A. General Delete item 1. In its entirety and replace with the following: "Pavement marking lines will be measured on a lineal basis for each size of line, with the exception of crosswalk markings which will be measured on an area basis."
Delete item 4 in its entirety.

B., C., D., E., F. Painted and Tape Markings
Delete item **1. Measurement** for each of these and replace with the following:

"Each type of pavement marking will be measured on a lineal basis for each size of line, with the exception of crosswalk markings which will be measured on an area basis."

K. Pavement Markings Removed: Delete item **1. Measurement** in its entirety and replace with the following: "Pavement markings remove will be measured on a lineal basis for each size of line or on a lump sum basis. Removal marking tape or markings obliterated during construction will not be measured. "

M. Grooves Cut for Pavement Markings: Delete item **1. Measurement** in its entirety and replace with the following: "Measurement will be on a lineal basis equivalent to the quantity of the pavement markings associated with the grooving."

2.01 Materials:
Add the following: "B.11. Preformed thermoplastic marking tape. Material shall be PREMARK® ViziGrip manufactured by Ennis-Flint, or approved equal."

Section 8030 Temporary Traffic Control

1.08 Measurement and Payment:
Add item B as follows:
"**B. Flaggers:**
1. Measurement: Measurement will be in days for each flagger used as approved by the Engineer. A day is considered a minimum of 6 hours. Half days are considered to be greater than 2 hours and less than 6 hours. Flaggers used less than 2 hours will not be measured for payment.
2. Payment: Payment will be at the unit price per day for each flagger.
3. Includes: Unit price includes provision of certified flaggers for direction of traffic and protection of construction zone as approved by the Engineer. "

DIVISION 9 - Site Work and Landscaping

3.01 Allowable Planting Dates
A. Evergreen Plants: Delete item A. in its entirety and replace with the following:
"**A. Evergreen Plants:** September 15 to November 15 and prior to June 1, but not after candles exceed 1 inch."
B. Deciduous Plants (Balled and Burlapped and Container): Delete item B. in its entirety

and replace with the following: "Deciduous **Plants (Balled and Burlapped and Container):** September 15 to November 15 and prior to June 1."

3.10 Pruning

B. Deciduous Trees: Delete Items 1-2 in their entirety and replace with the following:
1. Prune broken, damaged, or otherwise defective branches. Eliminate competing leaders.
2. Prune to develop an upright leader that will promote the symmetry of the tree. "

D. Deciduous Shrubs: Delete item and replace with the following: "**D. Deciduous Shrubs:** Remove dead or broken branches"

3.12 Establishment and Warranty Periods and Acceptance

C. Maintenance: Delete item 1 in its entirety.

D. Plant Condition: Delete item in its entirety and replace with the following: "**D. Plant Condition:** Ensure all plants are in a live, healthy, vigorous, and growing condition with canopy density and color representative of the species at the date of acceptance of the installation by the Engineer, at the end of the plant establishment period and at the end of the warranty period."

DIVISION 10 - Demolition

Section 10,010 Demolition of Building Structures

1.07 Special Requirements

Add item C.1 as follows: "C.1. Notify Linn County Public Health Department prior to plugging abandoned wells.

Add item C.2 as follows: "C.2. Notify Linn County Public Health Department of septic tank abandonment for inspection and recording."

3.02 Utility Disconnections

A. Sanitary Sewer: Delete this section in its entirety and replace with the following: "**Sanitary Sewer: 1.** Prior to the demolition of any structure, the sanitary sewer service serving it shall be temporarily plugged with a friction-type plug or cap to prevent storm water and debris from entering the line during demolition prior to the construction of the permanent plug.

2. The sanitary sewer service shall be cut off at the right-of-way and shall be tightly and permanently sealed with a plug of mortar. "

B. Water Service: Delete this section in its entirety and replace with the following: "Disconnect all water service connections at the main in accordance with Hiawatha rules and regulations. Coordinate a minimum of 48 hours in advance with the Water Meter Shop (319-393-5556) to schedule inspection. NOTE: Some water service disconnections will require the water main to be shut-down, requiring notice to affected customers. Inspection is required."

C. Storm Sewer: Delete this section in its entirety and replace with the following: "Disconnect all sump pump and area drain connections to the storm sewer at the back of curb. Permanently seal the branch of the sewer with a plug of mortar."

3.06 Well Pugging and Abandonment

Add to item the following: "Contact Linn County Public Health Department prior to abandonment and plugging wells for procedural and recording requirements."

Delete the following sections:

A. Plugging Procedures, All Wells

B. Plugging Procedures, Class 1 Wells

C. Plugging Procedures, Class 2 Wells

DIVISION 11 Miscellaneous

Section 11,010 Construction Survey

1.03 Submittals: Add the following:

1.07 Special Requirements **Add Item E. as follows:** "**E.** For usage of electronic files refer to Division 1, Section 1040 1.05."

F. The Jurisdiction shall not be required to provide electronic AutoCAD files or electric files including but not limited to surfaces. The contractor shall perform the work via the survey stakes provided by the Jurisdiction. At the discretion of the Engineer a limited electronic file may be provided given the contractor signs the Electronic Media Release."

1.08 Measurement and Payment

A. Construction Survey: Add to item 3 the following: "Also includes verification of control points and existing feature locations and elevations and submittals per Section 11,010 1.03."

DRAFT

RESOLUTION NO. 18-
City Council

RESOLUTION TO CONSIDER ADOPTING THE 2018 STATEWIDE URBAN DESIGN AND SPECIFICATION (SUDAS) AND THE GENERAL SUPPLEMENTAL SPECIFICATIONS TO SUDAS, 2018 EDITION

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF HIAWATHA, IOWA adopting the 2018 Statewide Urban Design and Specification (SUDAS) and the General Supplemental Specifications to SUDAS, 2018 Edition by resolution as authorized by Chapter 165.58 Construction Standards for Improvements in lieu of the existing Cedar Rapids Metropolitan Area Standard Specification effective January 1, 2019 as shown in Exhibit "A".

AYES:
NAYS:
ABSENT:

PASSED AND APPROVED this 19th day of December, 2018.

_____
Bill Bennett, Mayor

ATTEST:

_____
Kari Graber, Deputy City Clerk