



CITY OF
Ames™

**Supplemental Specifications
To the Iowa
Statewide Urban Design and
Specifications**

Public Works Department
Engineering Division
515 Clark Avenue
City of Ames, Iowa 50010

City of Ames Supplemental Specifications to SUDAS (2017 Edition)

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Division 1: General Provisions and Covenants

Section 1010: General Conditions

1.03 Definitions and Terms

Working Day – Add: Saturdays will not be excluded from working day counts if the contractor is working.

Add: Major Item of Work – Any contract item (pay item) for which the original contract amount plus authorized additions is more than 10% of the original contract sum or \$25,000 whichever is less.

Section 1040: Scope of work

1.06 Increase or Decrease of Work

B. Delete and Replace with the Following: 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, for major items as defined by COA Supplemental Specification 1010.1.03, amounting to 20% or less of the total bid for an item shall not affect the unit price of that item.

When a major item of work, is increased in excess of 120% or decreased below 80% of the original contract quantity. Any allowance for an increase in quantity shall apply only to that portion in excess of 120% of original contract item quantity. The adjustment in unit price, excluding profit, for an under run in excess of 20% will be computed on the difference between the actual quantity and 80% of the original contract quantity.

EXAMPLE:

If 100 units are in a contract and the item meets the major item definition and only 50 units are installed. The difference between 80% of the contract quantity and the actual installed quantity (50%) is 30 units.

20 units will be paid at the contract price
30 units will be paid at a new, agreed to, unit price.

If, however, the character of the work or the unit costs thereof is 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.

1.09 Changed Site Conditions

B. Compensation

Add: 3. Under no circumstances will payment for down time be made by the City of Ames as project field issues are being resolved. The City of Ames will take all necessary action to resolve issues in a timely manner.

1.10 Disputed Claims for Extra Compensation

A. Basis of Claim for Extra Compensation

Add: 6. Under no circumstances will payment for down time be made by the City of Ames as project field issues are being resolved. The City of Ames will take all necessary action to resolve issues in a timely manner.

1.11 Delays Caused By the Jurisdiction

Add: Under no circumstances will payment for down time be made by the City of Ames as project field issues are being resolved. The City of Ames will take all necessary action to resolve issues in a timely manner.

Section 1060: Control of Materials

1.04 Storage of Material

Add: On contracts for which the contract sum is \$10,000 or more, payments may be allowed based on value of processed or fabricated materials or rolled steel products which have been delivered on the work or 90% of the value of processed or fabricated material, or rolled steel products, reserved for the project and stored locally such that the materials can be inspected, are of acceptable quality and stored in a manner satisfactory to the Engineer.

Section 1070: Legal Relations and Responsibility to the Public

2.01 Sanitation

Add: If the project, in any phase, duration is 72 hours or more, on-site restroom facilities shall be provided. No additional payment will be made and any costs shall be included in other contract items.

2.07 Protection of Above Ground and Underground Facilities

Add: E. City of Ames performs locates for utility services (water and sewer) as these services, in the City of Ames, are owned by the property owner, not the City of Ames. Utility service locates for water and sewer are courtesy locates and the contractor is solely responsible for determining the exact location of all utility service connections. The City of Ames does not assume responsibility for the exactness of these courtesy locates and any damage caused by a contractor shall be immediately repaired at the Contractor’s expense by a plumber licensed to do work in the City of Ames.

Add: F. Potholing activities within pavement: Core holes shall be replaced with a minimum size patch of 4’x4’ unless approved by the Engineer, and the patch shall be Class C concrete. Class M concrete may be used with approval of the Engineer. Asphalt patches may utilized only on asphalt/sealcoat streets and only with approval of the Engineer. Asphalt patches shall be a minimum of 4’x4’ and the mix shall meet SUDAS specification 7020. The core hole plug is not to be utilized to fill the hole. Pothole locations are to be filled as soon as practicable and shall be covered and/or protected to ensure that the hole does not present a danger.

Add: G. Potholing activities outside pavement: Holes outside of the pavement shall be backfilled with sand to the no closer than 8” from the top of the existing surrounding soil. These areas shall be seeded and maintained until permanent growth is fully established.

Add: H. Potholing activities within sidewalks and pedestrian ramps: If potholing activities affect any portion of the pedestrian ramp, any elements of the ramp that do not meet current ADA standards shall be replaced and brought in to ADA compliance in accordance with Supplemental Specification section 7030. The affected panel shall be removed and replaced with class C concrete or M with approval of the Engineer.

Add: I. Potholes shall be patched or temporarily made ADA compliant within 48 hours of potholing. All pothole locations shall be protected/covered such that there is no danger to the public. Protection in sidewalk areas shall meet ADA requirements for trip hazards. If the protection cannot meet ADA, a fully compliant pedestrian detour shall be set up according to the City of Ames Standard Traffic Control Plans.

Add: 2.16 Garbage Services

Add: The contractor shall coordinate with local trash services for trash collection during the project with notification of project impacts to trash collection. No additional payment will be made.

Section 1080: Prosecution and Progress

1.01 Subletting or Assignment of Contract

A. Work by Contractor

Add: 4. Any and all service work shall be performed by a plumber licensed with the City of Ames in accordance with the Ames Municipal Plumbing Code. The contractor shall coordinate the work to be done so that it does not impede the progress of the project as a whole.

Add: 5. Work by Contractor – All traffic signal service work shall be performed with a licensed IMSA Signal Level II technician onsite.

1.04 Preconstruction Conference

Add: The contractor shall provide a minimum of 5 business days to schedule a preconstruction meeting. No work shall take place until the preconstruction conference has been held. Work shall commence no more that one month after the preconstruction meeting.

1.10 Contractor’s Employees, Methods, and Equipment

B. Workers

Add: 3. When working in the City of Ames shirts shall be worn. Shirts with profanity or offensive designs are not allowed.

Division 2: Earthwork

Section 2010: Clearing, Excavation, and Embankment

1.08 Measurement and Payment

F. Below Grade Excavation (Core Out)

2. Delete: “existing embankments or following proof rolling operations.” **Add:** “embankments constructed as part of the project or once the grade has been approved following a successful proof rolling test.”

L. Compaction Testing

1. Delete and Replace with the following: The contractor will be responsible for compaction testing and payment for testing unless otherwise specified in the Contract Documents.

Delete 2.

2.01 Topsoil

Delete “stones larger than 1 inch (1/2 inch for turfgrass seeding)” **Add:** “stones larger than 3/8 inch”

2.04 Foundation Materials

D. Subbase

1. Special Backfill

Add: c. Recycled HMA will not be allowed for Special Backfill under new PCC pavement.

3.04 Embankment Construction

C. Depositing Embankment Material:

1. **Add:** No embankments shall be built on frozen earth.

Add D. Density reports shall be submitted to the contractor and to the City within 3 days of the test being performed. No paving activities, including placement of curb and gutter, will be allowed until reports have been submitted, approved and/or corrective action taken on deficient test results.

3.06 Subgrade Preparation

A. Uniform Composition

Add: 5. A disk or plow shall be used for turning soil for drying. If conditions do not allow enough space for a disk or plow, the material shall be opened up for drying via other methods, proposed by the Contractor, with the approval of the Jurisdictional Engineer. Use of a ripper for turning soil will not be allowed.

4. **Add:** City of Ames shall verify the subgrade elevations prior to placement of subbase material.

B. Subgrade Stability

1. **Delete:** “Perform proof rolling with a truck loaded to the maximum single legal axle gross weight of 20,000 pounds or the maximum tandem axle gross weight of 34,000 pounds.” **Add:** “Perform proof rolling with a tandem axel truck loaded with a minimum net weight of 15 tons of material. Proof rolling operations for verification of subgrade shall be jointly observed by the Contractor and City of Ames Staff.” **Delete:** “of more than 2 inches, measured from the top to the bottom of the rut at the outside edges”. **Add:** “Tire rutting during proof rolling will be unacceptable.”

2. **Delete and Replace with the following:** If soft or yielding areas are located, the Contractor shall provide subgrade preparation per 2010.3.06.A.2 and allow adequate time for the material to dry at no additional cost. Should the area fail the second proof rolling operations, the method of stabilization will be determined and agreed to jointly by the Engineer and the Contractor. Agreed stabilization will be paid for utilizing existing contract items or if there is no contract items the stabilization will be paid for by extra work order.

D. Add: Contractor shall have survey stakes and string line set prior to performing the subgrade check. Contractor and City of Ames Staff shall jointly verify subgrade elevations.

3.08 Subbase

D. 2 Add: Contractor shall have survey stakes and string line set prior to performing the sub base check. Contractor and City of Ames Staff shall jointly verify sub base elevations.

3.09 Field Quality Control

B. Moisture Content and Density

1. **Delete and Replace with the following:** Ensure that moisture content falls within a range of optimum moisture of -1% to +3% of optimum moisture.

Division 3: Trench and Trenchless Construction

Section 3010: Trench Excavation and Backfill

1.08 Measurement and Payment

F. Trench Compaction Testing

1. **Delete and Replace with the following:** The contractor will be responsible for compaction testing and payment for testing unless otherwise specified in the Contract Documents. Density reports shall be submitted to the contractor and to the City within 3 days of the test being performed. No paving activities, including placement of curb and gutter, will be allowed until reports have been submitted, approved and/or corrective action taken on deficient test results.

2. **Delete.**

2.01 Materials Excavated from a Trench

C. Add: No additional compensation will be made for minor adjustments to elevations due to field conditions.

3.05 Pipe Bedding and Backfill

Add: E. Compaction shall be done by utilizing equipment as outlined in Iowa DOT Standard Specification 2001, General Requirements.

Add: Pipe embedment shall be R-2 for storm sewer pipe, F-3 for sanitary sewer pipe and P-1 for water main.

Section 3020: Trenchless Construction

3.04 Trenchless Installation

Add D. Any installation by trenchless construction the contractor shall verify that sanitary and storm sewer main, including residential services have not been impacted by the installation. The method of verification shall be either by visual inspection at critical crossings jointly with City staff or by televising. If televising is used the report shall be submitted to the City for review prior to acceptance/payment for the work and/or closure of the right of way permit. Any locations discovered to be in conflict shall be repaired immediately at no cost to the City.

Division 4: Sewers and Drains

Section 4010: Sanitary Sewers

3.02 Gravity Sewer Installation

A. General

7. Delete and Replace with the following: Use watertight stopper, plug, or other approved means to protect the exposed upstream ends of the pipe and prevent soil sediment from entering the storm sewer system.

3.06 Sanitary Sewer Service Stubs

C.

5. Add: Mark end point with a 14-foot 2"x4", painted green and wrapped with metallic tape.

Section 4020: Storm Sewers

1.07 Special Requirements

Add: A. Use Class R-2 Pipe Embedment from Figure 3010.102 (SW-102) for storm sewer pipe installations.

2.01 Storm Sewers

A. Reinforced Concrete Pipe (RCP)

3. Delete: "with cold applied bituminous or rubber rope gasket jointing materials, unless otherwise specified."

4. Delete: "If specified,"

B. Reinforced Concrete Arch Pipe (RCAP)

3. Delete: "with cold applied bituminous or rubber rope gasket jointing materials, unless otherwise specified."

4. Delete: "If specified,"

C. Reinforced Concrete Elliptical Pipe (RCEP)

3. Delete: "with cold applied bituminous or rubber rope gasket jointing materials, unless otherwise specified."

4. Delete: "If specified,"

3.02 Pipe Installation

A. General

3. Delete: "non-shrink grout or"

Section 4040: Subdrains and Footing Drain Collectors

Figure 4040.231

Add note 3: 4" subdrain is allowable for Type 1 installations.

Section 4050: Pipe Rehabilitation

1.07 Special Requirements

B. Delete: "if required" **Add:** "The City of Ames Water Meter Shop phone number is 515-239-5151."

C. Add: Contractor shall coordinate with the City of Ames Water Meter Shop for the location of the water meter.

Section 4060: Cleaning, Inspection, and Testing of Sewers

2.01 Testing Equipment

B. Video Inspection

3. Add: Compact disc, DVD or electronic files saved to a portable media device such as a flash drive are preferred by the City of Ames. Standard VHS videotape is not acceptable.

4. Add: Video Inspectors shall be NASSCO, PACP Certified.

3.01 Cleaning

A. Delete “flushing with high pressure water” **Add:** “jetted”.

3.03 Video Inspection

Add 5. All service taps shall be installed prior to video inspection.

Division 5: Water Mains and Appurtenances

Section 5010: Pipe and Fittings

2.05 Pipeline Accessories

1.b Add: 8) For trenchless installation, wire to be #10 AWG.

4. Delete Section and replace with the following:

Tracer wire splice kits shall be a 3M Scotchcast Buried Service Wire Splice Encapsulation Kit 3832 or an equivalent system approved by the Engineer.

2.07 Water Service Pipe and Appurtenances

B. Materials

3. Delete: “ASTM D 1785, Schedule 80 or ASTM D 2241, SDR 21.” **Add:** “C900 with wall thickness of DR 14.”

3.01 Pipe Installation

A. General

8. Delete: “when specified in the contract documents,”

10. Delete: “during nights and non-working days.” **Add:** “immediately after individual pipe segments are installed in the trench.”

B. Trenched

1. Add: Use P-1 Pipe Embedment from Figure 3010.104 (SW-104) for water main pipe installations. Granular material shall not be used for bedding or backfill material.

3.06 Tracer System Installation

C. Delete: “lower quadrant” **Add:** “top”

Add: H. Use only bimetallic copper clad steel conductor during boring operations per 5010.2.05,1,B.

Add: I. At tapping valves or cut-in valve installations, tracer wire to be installed up in to the top of the valve box and looped in a continuous fashion as shown in standard detail WM-102 for hydrant runs.

Add: J. Contractor to supply splice and grounding rod location documentation prior connectivity testing.

3.07 Conflicts

C. Separation of Sewer and Water Main Crossovers:

3. Delete and Replace with the following: Where the storm sewer crosses over or less than 18 inches below a water main, construct one of the following:

Add: a. Locate one full length of sewer pipe of water main material or reinforced concrete pipe (RCP) with flexible O-ring gasket joints so both joints are as far as possible from the water main.

Add: b. The water main shall be constructed of ductile iron pipe with nitrile gaskets extending at least 10 feet normal to each side of the crossing. One full length of water main pipe shall be located so that both joints are as far as possible from the storm sewer.

Add: c. The storm sewer pipe shall be encased at least 10 feet normal to each side of the crossing. One full length of water main pipe shall be located so that both joints are as far as possible from the storm sewer.

Add: d. The water main shall be centrally placed in a casing pipe supported with casing spacers and have end seals extending at least ten feet normal to each side of the crossing. One full length of water main pipe shall be located so that both joints are as far as possible from the storm sewer.

Figure 5010.102 (WM-102)

Add to the end of first sentence on Note 1: “to maintain a continuous tracer wire run within the tracer wire system.”

Section 5020: Valves, Hydrants, and Appurtenances

1.08 Measurement and Payment

C. Fire Hydrant Assembly

3. Add: Anchor Tee shall be paid for as part of the Fire Hydrant Assembly and not paid for separately.

E. Valve Box Adjustment, Minor

Add: Valve box adjustment rings will be incidental. Tracer wire connections, if present in existing fixture, shall be restored incidental to any fixture adjustment.

F. Valve Box Extension

1. **Add:** Tracer wire connections, if present in existing fixture, shall be restored incidental to any fixture adjustment.

G. Valve Box Replacement

3. **Add:** Tracer wire connections, if present in existing fixture, shall be restored incidental to any fixture adjustment.

2.01 Valves

D. Tapping Valve Assemblies

Add: 8. Poured concrete reaction block meeting 5010.2.04 or cap block shall be placed behind tapping valve sleeves for support. A maximum of 6 solid cap block (nominal 4"x8"x16") may be used. Only full blocks shall be used, no breaking of the blocks will be allowed. No other material shall be used without approval of the Engineer.

2.02 Fire Hydrant Assembly

B. Manufacturers

Add: Allowable hydrants for new or replacement in the City of Ames: *Clow, Model: Medallion, Mueller: Super Centurion,* and *Waterous, Model: Pacer (WB-67-250)*

C. Features

6. Items to be specified

a. Add: Pentagonal, size 1 ½ inches

b. Add: 4 1/2 inches in diameter

c. Add: National Standard

Add: e. Nominal bury length: 6 feet

D. Painting

2. Add: Public Hydrants shall be green in color # 2033 Hydrant Green, silicone enamel, Klinger Paint Company, Cedar Rapids, Iowa

2.03 Appurtenances

A. Flushing Device (Blowoff): Delete: "As specified in the contract documents." **Add:** "Hydrants are required for blowoffs."

C. Valve Stem Extension

Add: Valve stem extensions shall be a minimum 1" diameter solid steel shaft extension. Set screws on valve stem extensions are to be removed and not used for connection at the operating nut. Hollow shaft stems and stems with a roll pin at the bottom of the extension to allow pivoting of the stem at the valve will not be allowed.

Add: D. Holding Spools (minimum 12" long) are required between all valves and tees. No additional measurement or payment will be made.

3.04 Adjustment of Existing Valve Box or Fire Hydrant

A. Minor Valve Box Adjustment

Add: Tracer wire connections, if present in existing fixture, shall be restored by placing a cut 1" below the lowest point on the valve box lid while the lid is inside of the valve box so as not to damage the tracer wire with the valve box lid and the valve box itself rubbing against each other.

B. Valve Box Extension

Add: Tracer wire connections, if present in existing fixture, shall be restored by placing a cut 1" below the lowest point on the valve box lid while the lid is inside of the valve box so as not to damage the tracer wire with the valve box lid and the valve box itself rubbing against each other.

C. Valve Box Replacement

Add: Tracer wire connections, if present in existing fixture, shall be restored by placing a 2" minimum vertical slot through valve box below the lowest point on the valve box lid while the lid is inside of the valve box so as not to damage the tracer wire with the valve box lid and the valve box itself rubbing against each other.

Figure 5020.101 (WM-101)

Add: Unmixed dry concrete is not allowed for thrust blocks.

Figure 5020.201 (WM-201)

Add: All pipe in the fire hydrant assembly, in all details shown, shall be ductile iron, including the anchor pipe and riser pipe. to the typical plan and to the alternate plan.

Division 6: Structures for Sanitary and Storm

Section 6010: Structures for Sanitary and Storm Sewers

2.02 Concrete Materials

A. Precast

Add: Unless specified, use of pre-cast structures, for storm sewer intakes in the City of Ames will be allowed only with approval of the Engineer. Approved structures shall comply with ASTM C 478 and no additional compensation will be made for coring into the structure due to minor field adjustments of inlet and outlet pipes and subdrains.

B. Cast-in-place

Add: An M-4 concrete mix may be used for intake bases with approval of the Engineer.

2.03 B. Reinforcement

Add: All reinforcing steel shall be epoxy coated unless otherwise indicated on the plans.

2.09 Manhole or Intake Adjustment Rings (grade rings)

A.1: Delete Section

A.2 Add: e. For storm sewer structures only.

A.3 Add: d. Shall be used for sanitary sewer manholes. At the contractor's option, may be used for storm sewer structures.

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

C. Casting Types

1. Add: Manhole castings shall be 2 piece fixed castings. For all manhole castings located in a flood plain, provide bolt down covers. All castings shall comply with figures SW-601 and SW-602. Concrete box outs for manholes in PCC paving shall comply with figure PV-103. Concrete box outs for manholes in HMA paving shall comply with figure PV-201. All manholes in paving shall be gasketed.

2.11 Additional Materials for Sanitary Sewer Manholes

B. Riser Section Coating

1. Delete: When exterior waterproofing is specified, provide bituminous or coal tar coating. **Add:** All exterior concrete surfaces shall have bituminous waterproofing on all sanitary sewer manholes.

2.13 Steps

Delete: Entire Section. Steps are not allowed.

3.01 General Requirements for Installation of Manholes and Intakes

K. Infiltration Barrier

1. Delete: "Internal or"

3.02 Additional Requirements for Cast-In-Place Concrete Structures

A. Forms

2. Add: On intake replacement projects the Jurisdictional Engineer may allow the exterior walls of the intake to be poured against undisturbed earth where the vertical face is true and the wall thickness will not exceed 8 inches in width.

3.05 Connection to Existing Manhole or Intake

C. Sanitary Sewer

3. Delete Entire Section.

Figure SW-514

Delete Sheet 3. Not allowed in the City of Ames

Division 7: Streets and Related Work

Section 7010: Portland Cement Concrete Pavement

1.07 Special Requirements

Add: When placing PCC, the Contractor shall protect adjacent fixtures from concrete splatter or direct contact with the concrete. Fixtures include but are not limited to light poles, light pole bases, controller cabinets, hand holes, buildings, manhole lids, water valve lids and fire hydrants.

Add: If a valid maturity strength curve is not available for the concrete mix provided, a C4 mix shall be used with a minimum of 5 days cure prior to opening for sealing operations. The contractor, at their option, may hire an independent testing company to make, cure and test flexural strength specimens in accordance with IDOT IM 316 to verify the pavement meets opening strength requirements should they wish to shorten the minimum cure time, at no additional cost to the City.

3.02 Pavement Construction

F. Concrete Pavement Placement

Use a slip-form paving machine for all pavement 8.5 feet or more in width and 150 feet or more in length. For pavement sections less than 8.5 feet in width and/or less than 150 feet in length, screed finish methods may be used.

L. Pavement Backfill

Delete and Replace with the Following: Following slip form paving operations, place backfill material along the pavement within 48 hours of pavement attaining opening strength and pavement joints have been sealed or as directed by the Engineer to prevent flow of water and any subsequent damage caused by undermining of the pavement. Prior to placement of full backfill material, construct check dams or other protection as appropriate to ensure no damage to the subgrade and/or subbase occurs.

3.03 Curb and Gutter Construction

A. Add: Construct curb and gutter as per City of Ames curb standard with 30" width and heights of 7" at face and 12" at back with 1" tilt onto curb. An 'ED' Joint is required at each end of a radius.

B. (REPLACE) Use a paving machine for curb and gutter sections 150 feet or more in length. For curb and gutter sections less than 150 feet in length, hand placement/finish methods may be used.

Add: C. No asphalt shall be placed against curb less than 72 hours old unless maturity testing of the curb has been successfully completed in accordance with IDOT IM 383 or flexural strength testing has been successfully completed in accordance with IDOT IM 316. All testing shall be done by the contractor and verified by the City by witnessing of the testing.

3.08 Pavement Smoothness

C. Pavement Smoothness

1. Delete: "The Engineer will check PCC pavement surfaces with a 10 foot straightedge placed parallel to the centerline."

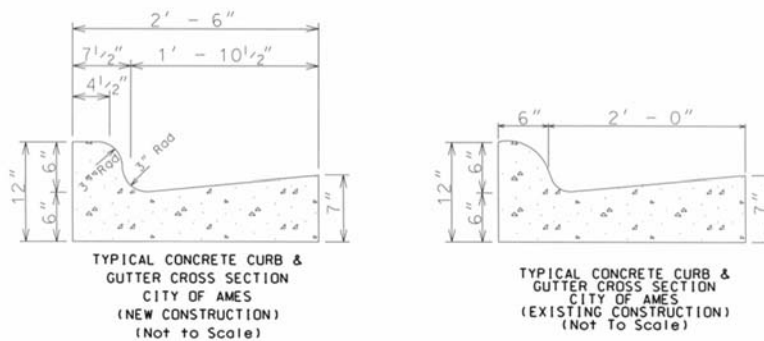
Add: "The Contractor will check PCC pavement surfaces with a 10 foot straight edge or "bump buggy" placed parallel to the centerline, in the presence of City Staff."

Figure 7010.906

Delete: Doweled Median. Doweled medians are not allowed in street applications without approval of the Municipal Engineer. Only landscape medians will be allowed. Medians with 4" PCC cap may be required in lieu of landscape medians at the direction of the Municipal Engineer.

Figure PV-102

Delete Entire Sheet. See City of Ames curb detail below.



City of Ames Curb Detail

Section 7020: Hot Mix Asphalt Pavement

1.07 Special Requirements

Add: A. HMA surface placement in subdivisions shall be delayed a minimum of one calendar year from the final date of HMA base placement.

Add: B. HMA surface placement in subdivisions shall not take place in the fall season after the date of October 15th without the approval of the Engineer.

3.05 Pavement Smoothness

A. Straightedge

Delete: The Engineer will check HMA pavement surfaces with a 10 foot straightedge placed parallel to the centerline.
Add: The Contractor will check HMA pavement surfaces with a 10 foot straight edge or “bump buggy” placed parallel to the centerline, in the presence of City Staff.

Section 7030: Sidewalks, Shared Use Paths, and Driveways

1.07 Special Requirements

Add: A. Design elements for curb ramps to be shown on City approved “S-Sheets” similar to those utilized by the Iowa DOT.

Add: B. Placement of pedestrian facilities at intersections and mid-block crossings shall be installed at the time the other public improvements are installed and verified per Section 7030.3.04.G. Acceptance of the public improvements will not be granted if this condition is not met.

2.01 Portland Cement Concrete

A. Delete “B or”

B. Table 7030.01: PCC Mixes

Delete “B or”

2.07 Detectable Warnings

Delete and Replace with the following: Detectable warning panels (truncated domes) shall be the Armor Tile, brick red, cast-in-place.

3.04 PCC Recreational Trails, Sidewalks, and Driveways

F. Jointing

2. Transverse Contraction Joints

b. Sidewalks and Driveways

3. Delete and Replace with the following: Transverse contraction joints shall be sawed within 12 hours of placement with a 1/8 inch blade saw from edge to edge.

4. Isolation Joints

c. Add: Isolation joints shall be sealed, including joints that butt against the back of curb.

Add: G. Pedestrian Facility Compliance and Acceptance

1. Contractor is responsible for constructing all new pedestrian facilities in accordance with the plans, specifications and applicable standards. Pedestrian facilities include sidewalks, shared use paths, pedestrian ramps and crosswalks.

On City and subdivision projects the following shall apply:

a. The engineer can provide assistance and guidance on plan interpretation, upon request. However, the contractor is solely responsible for implementing the plans.

b. The design and construction parameters of pedestrian ramps are relatively narrow. Minor errors in formwork or pavement finishes can significantly affect the final results. Because of this, special care and attention should be taken when setting formwork and/or finishing the various elements of pedestrian ramps including but limited to adjacent curb and gutter, ramp lip, truncated dome placement, widths, running slopes and cross slopes.

c. A pay-item for Pedestrian Facility Construction Survey and Staking has been added to account for the anticipated extra effort to comply with strict standards on all City of Ames projects. No extra payments for this item will be made.

d. The Contractor installing the pedestrian facilities shall have a set of construction plans on site.

On private construction or private utility projects the following shall apply:

a. The design of the affected facility shall be done by

b. The engineer can provide assistance and guidance on plan interpretation, upon request. However, the contractor is solely responsible for implementing the plans.

2. No payment will be made for pedestrian facilities as described in Section 21.1 until the pedestrian facility compliance with the plan is verified by the Engineer.

3. Initial review of Pedestrian Facility plan compliance will be made by the Engineer no more than 5 business days after Contractor reports to the Engineer that the entire shared use path section, sidewalk section, crosswalk section or pedestrian ramp is complete. Partial acceptance of pedestrian facilities will not be made. (i.e. 6” sidewalk ramp and landing pad will not be accepted until 4” sidewalk tie-ins are completed and ALL elements of the pedestrian ramp are determined compliant.)

4. Plan compliance of pedestrian facilities will be determined by the Engineer via the use of a smart level. Measurement will take place after construction and shall be within the tolerances called out in the plans. If any element falls outside the specified tolerances, the pedestrian facility will be determined non-compliant. The contractor shall remove and replace all non-compliant elements and any additional items such as, but not limited to newly placed curb and gutter, necessary in order to bring the pedestrian facility into compliance at no cost to the City.

- a. In the event the contractor does not agree with the Engineer, they can present their own information at no additional cost to the City. This may be in the format of using another, properly calibrated smart level in the presence of the Engineer, or through the use of Total Station. No GPS verification will be allowed. The Engineer will respond to the additional information provided by the contractor within 5 business days.
 - b. If the contractor presents data confirming non-compliance, the contractor shall remove and replace the pedestrian facility at no cost to the City.
 - c. If the contractor presents data confirming they are in compliance, and the City accepts that data, the Engineer will determine the pedestrian facility is within compliance.
 - d. If the contractor presents data showing they are in compliance, and the City has cause to believe the data may be in error, the City will re-evaluate the pedestrian facility. The City will then provide written documentation of the survey data, possible concerns, and required action, if any necessary for final acceptance.
5. In the event the contractor has cause to believe the City is in error after Section 7030.3.04.G.4, a third party survey can be requested, in writing, by the contractor. The City will then hire a third party surveyor to verify the newly constructed pedestrian facility via the use of total station.
- a. By requesting this, the contractor is agreeing to pay the third party surveyor fees through a change order of the contract if the pedestrian facility is determined out of compliance. The contractor also agrees to remove and replace any non-compliant pedestrian facility at no cost to the City.
 - b. If the pedestrian facility is determined to be compliant, the contractor will not be charged for any of the third party survey work and the pedestrian facility will be determined compliant by the Engineer.
6. Once compliance of the pedestrian facility has been verified and accepted, the Contractor shall as-built drawings for each verified and accepted location to the Engineer. The as-built will include, but is not limited to, distances and slopes within the facility.

3.10 Cleaning

D. ADD

Prior to opening the sidewalks and pedestrian crossings, the Contractor shall clean the detectable warning panels of all superfluous concrete and plastic covering after the concrete is cured such that the panel surface is clean and the truncated surface is fully functional.

Figure 7030.101

Add: Driveway and curb opening widths for new pavement shall conform to Table 5I-4.01 of the SUDAS Design Manual. Expansion material shall be fiber board with a total of 1" of expansion between the back of curb and the back of sidewalk (i.e. 1" at back of curb, none at back of sidewalk **OR** none at back of curb and 1" at back of sidewalk **OR** ½" at back of curb and ½" at back of sidewalk **OR** any other split of a summation of 1" of expansion).

Figure 7030.102

Delete Entire Sheet: Application of this detail shall not be used in the City of Ames. Integral driveways are not allowed without approval of the Jurisdictional Engineer.

Figure 7030.204

Add: All ramps to pavement connections shall be BT-3 joints. The ½ inch expansion material is to be placed on all 4 sides of the common square/landing.

Figure 7030.205

Add: All ramps to pavement connections shall be BT-3 joints. The ½ inch expansion material is to be placed around the entire landing area behind the ramp.

Figure 7030.206

Add: All ramps to pavement connections shall be BT-3 joints.

Figure 7030.207

Add: All ramps to pavement connections shall be BT-3 joints. The ½ inch expansion material is to be placed around the entire landing area behind the ramp.

Add: Minimum Pavement Thickness Tables

| Minimum PCC Pavement Thickness | | | |
|--------------------------------|-------------------------|----------------------|-------|
| Street Classification | Pavement Thickness | | |
| | Commercial / Industrial | Residential / Fringe | Rural |
| | | | |

| | | | |
|-------------------------------|-----------------------------------------------------|-----------------------|-----------------------|
| Local (on grade) (1) | 8" (7" Reinforced) | 8" (7" Reinforced) | 8" (7" Reinforced) |
| Local (on minimum 6" subbase) | 7" | 7" | 7" |
| Minor Collector (1) | 8" | 8" | 8" |
| Major Collector | Special Design (See SUDAS Design Manual Section 5F) | | |
| Minor/Major Arterial | Special Design (See SUDAS Design Manual Section 5F) | | |

(1) Load Transfer Devices Required

| Minimum HMA Pavement Thickness | | | | | | | | | |
|--------------------------------|-----------------------------------------------------|-----|-------|------------------------------------|-----|-------|---------------------------------------------------|-----|-------|
| Street Classification | Surface Course Thickness | | | Intermediate/Base Course Thickness | | | Total Pavement Thickness including Surface Course | | |
| | C/I | Res | Rural | C/I | Res | Rural | C/I | Res | Rural |
| Local | 2" | 2" | 2" | 7" | 6" | 7" | 9" | 8" | 9" |
| Minor Collector | 2" | 2" | 2" | 8" | 7" | 7" | 10" | 9" | 9" |
| Major Collector | Special Design (See SUDAS Design Manual Section 5F) | | | | | | | | |
| Minor / Major Arterial | Special Design (See SUDAS Design Manual Section 5F) | | | | | | | | |

C/I = Commercial/Industrial at 5% Trucks

Intermediate/Base Course Thickness may be reduced 1" for every 6" of subbase material placed up to 12" of subbase material.

Division 8: Traffic Control

Section 8010: Traffic Signals

2.01 Underground

A. Handhole

1. General

Add d. No additional handholes are to be installed during construction unless approved by the Jurisdictional Engineer.

3. Add The final handhole before entering the controller cabinet shall be a 30 inch by 48 inch by 24 inch deep heavy duty QUAZITE® style enclosure, box identification #PG3048BA24, and shall have a Heavy Duty 2-Piece cover with 2 Bolts set, cover identification #PG3048HS00, or approved equivalent box and cover.

B. Conduit

Delete 2. No rigid steel conduit is to be used in the City of Ames.

C. Wiring and Cable

2. Signal Cable

Delete and Replace with the Following: Signal Cable shall be multi-conductor copper wire, and meet the requirements of IMSA Specification 19-1. All Signal Cable shall be stranded 14 A.W.G. wire. All splices to IMSA Specification 19-1 cable must be done using moisture resistant Scotchlok 314 type connector or approved equivalent.

4. Communications Cable

Add: All splices to communication cable shall be done using moisture resistant Scotchlok UR2 type connectors or approved equivalent.

2.02 Detection

B. Pedestrian Push Button Detectors

Add 5. Type and Model of push button shall be specified or approved by Jurisdictional Engineer.

2.04 Cabinet and Controller

A. NEMA Controller, Cabinet, and Auxiliary Equipment

1. Controller

The controller shall be an EPAC NEMA controller compatible with TS1 and TS2 operation.

2. Cabinet

b. Delete: "12 to 18" **Add:** "24"

2.05 Poles, Heads, and Signs

135 Watt lamps shall not be used in new or retrofit signal head installations. All signal head lamps shall be an approved 12 inch diameter LED lamp.

60 Watt lamps shall not be used in new or retrofit pedestrian head installations. All pedestrian head lamps shall be an approved 12 inch square LED lamp.

Figure 8010.101

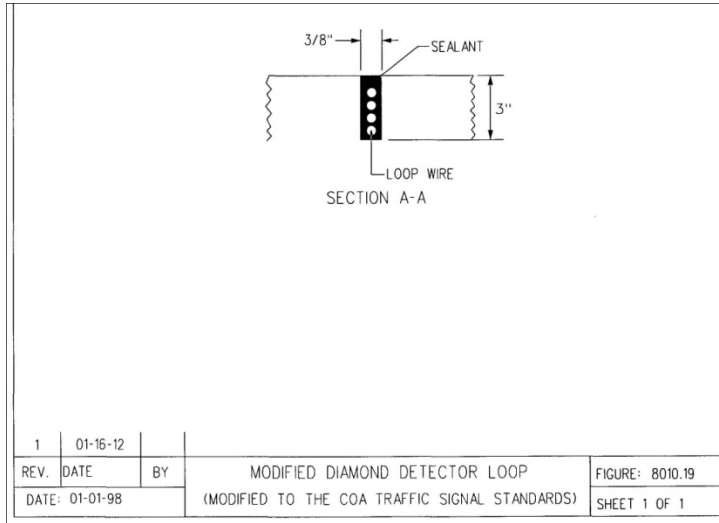
Add: Controller Cabinet Footing: Cabinet footing shall not extend more than 2 inches above ground level.

Figure 8010.104

Delete: Rectangular Detector Loop. This style of inductive loop vehicle detectors shall not be used in the City of Ames.

Delete: Section A-A **Add:** Section A-A from Modified Diamond Detector Loop (COA Figure 8010.19)

COA Figure 8010.19



Section 8020: Pavement Markings

3.02 Construction

B. Add 5. Contractor shall use a high pressure water system (water blasting) for cleaning unless air temperature is 32 degrees (freezing point) or below. If air temperature is below the freezing point, then surface grooving per 8020.3.02.J may be allowed with approval of the Engineer. Payment shall be per station (100 lf) of finished markings.

Add 6. Removal of existing pavement markings may be by vacuum blasting, shot blasting, or high pressure water blasting. Open abrasive blasting without containment will not be allowed. The equipment and method used shall be recommended by the manufacturer. Pavement grinding or grooving for removal of pavement markings, symbols or legends will not be allowed.

C. Pavement markings shall be high-build waterborne paint pavement markings. Waterborne and solvent based paint or durable paint pavement markings will only be allowed with the approval of the Traffic Engineer. If waterborne or solvent based paint is allowed, longitudinal pavement markings on HMA (Hot Mix Asphalt) shall be applied in two passes, with beads spread during the second pass. The second pass shall be laid no sooner than two hours after the first pass. HMA pavement shall be clean and free of all debris prior to painting. Payment shall be per station (100 lf) of finished markings, regardless of number of paint passes.

Add: L. Symbols and Legends. Symbols and legends shall be polymer tape. High build paint or durable thermoplastic may be allowed with approval of the Traffic Engineer. Symbols and legends shall be grooved in to pavement per 8020.3.02.J. Pavement shall be cleaned and free of all debris prior to placing symbols as per 8020.3.02.B. Payment shall be per each symbol.

Division 9: Site Work and Landscaping

Section 9010: Seeding

1.03 Submittals

Add: C. At the pre-construction meeting, and/or prior to any contract work commencing, submit a written watering plan detailing the equipment to be used, the water source, and the manpower to be used towards meeting the specified watering requirements.

1.08 Measurement for Payment

A. Conventional Seeding

1. Seeding

a. Add If construction limits or easement limits are not defined in the contract documents the jurisdictional engineer shall determine the limits of measurement for pay.

3.04 Conventional Seeding

C. Seedbed Preparation, Permanent

2. Delete "to a depth of no less than 3 inches." **Add:** "to a depth of no less than 6 inches."

Section 9020: Sodding

1.03 Submittals

Add: D. At the pre-construction meeting, and/or prior to any contract work commencing, submit a written watering plan detailing the equipment to be used, the water source, and the manpower to be used towards meeting the specified watering requirements.

1.08 Measurement for Payment

A. Sod

1. Add: If construction limits or easement limits are not defined in the contract documents the jurisdictional engineer shall determine the limits of measurement for pay.

Section 9030: Plant Material and Planting

1.03 Submittals

Add: F. At the pre-construction meeting, and/or prior to any contract work commencing, submit a written watering plan detailing the equipment to be used, the water source, and the manpower to be used towards meeting the specified watering requirements.

Section 9040: Erosion and Sediment Control

2.18 Inlet Protection

A. Drop-in Intake Protection

Add 4. The below grate inlet protection shall be installed as soon as possible after the streets are paved.

Delete: B. Delete entire section as surface applied intake protection shall not be used in the City of Ames.